State of Wyoming

Department of Health

Annual Report on Cancer in Wyoming - 2006

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October 2008

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Department of Health

Annual Report on
Cancer in Wyoming - 2006

Annual Report on Cancer in Wyoming - 2006
is published by the
Wyoming Cancer Surveillance Program
Preventive Health and Safety Division
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This publication was supported by Grant/Cooperative Agreement
Number U58/DP000801-02 from the Centers for Disease Control and Prevention.
Its contents are solely the responsibility of the authors and do not necessarily represent
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This document is available in alternative format upon request.

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Executive Summary

Cancer rates in Wyoming continue to be generally lower than the comparable national rates. Incidence for all cancer sites combined for Wyoming increased to 432.7 per 100,000 in 2006 from 384.0 per 100,000 population in 2005. However, Wyoming is still lower than the national rate of 459.0 per 100,000 population. Mortality for all sites for Wyoming in 2006 was also up slightly from the previous year to 174.4 per 100,000 population, but was still lower than the national rate of 182.7 per 100,000. The only other incidence rates that were significantly different were all cancer sites for females, lung cancer in males, and prostate cancer. The all cancer site category for females and lung cancer for males were both significantly lower than the national rates, while the incidence rate for prostate cancer was significantly higher than the national rate.

By using a 3-year average instead of single year data to track changes over time, the trends for many cancers appear to leveling out (all sites, colorectal, melanoma, and pancreas). Some rates including bladder, kidney & renal pelvis, thyroid, and uterine are on the increase. Still others (brain/CNS, female breast, leukemia, lung, non-Hodgkin lymphoma, oral cavity, ovary, and prostate) show a decrease from previous years.

The top five cancer sites for incidence were the same as the previous year: prostate, female breast, lung/bronchus, colorectal and urinary bladder. The most common cancer for incidence by age groups were: brain/CNS (5-9 years), Leukemia (15-19), testis (20-24 years), breast (25-29 years), melanoma (30-34 years), thyroid (35-39 years), breast (40-54 years), prostate (55-74 years), lung, (75-79), and colorectal (80+ years).

The top five cancer sites for mortality were lung/bronchus, colorectal, ill-defined, breast, and pancreas. The most common cancers for mortality by age groups were: breast (40-49 years), colorectal (50-54 years), lung (55-84 years), colorectal (85+ years).

INTRODUCTION

Cancer

Cancer is a group of diseases characterized by uncontrolled growth and spread of abnormal cells. If the spread of abnormal cells is not controlled, death can result. Many cancers are preventable and many can be cured if detected and treated early.

Causes of Cancer

Cancer is caused by both environmental and internal factors. Environmental causes include exposures to chemicals, radiation, or viruses, as well as exposures associated with life-styles (e.g., smoking, diet, and alcohol consumption). Internal causes include hormone levels, immune status, and inherited conditions. Causal factors may act together or in sequence to start or promote cancer. Ten or more years often pass between carcinogenic exposures and detectable cancer.

Prevention

Avoiding potential exposures such as tobacco use, severe sun exposure, and excessive dietary fat may prevent the onset or promotion of cancer. Also, increasing beneficial practices such as eating five servings of fruit or vegetables every day may help to prevent cancer. Early detection and treatment of cancer through established screening practices such as mammography, prostate specific antigen (PSA), and colorectal screening improves the survival rates and decreases mortality.

Wyoming Cancer Surveillance Program

Cancer is a reportable disease in Wyoming. State statute requires that physicians, hospitals and laboratories report all cases of cancer they diagnose or treat in Wyoming to the Cancer Surveillance Program (WCSP), which serves as the state's central cancer registry. The purpose of the registry is to gather data to determine cancer incidence, mortality, treatment, and survival in Wyoming. Through special interstate agreements, information on Wyoming residents diagnosed or treated in other states is included in the program's database.

Insuring accurate data is one of the most important roles of the cancer registry. The WCSP established procedures for both automated and manual methods of checking the quality of data. The data is stored in the Rocky Mountain Cancer Data Systems software which has a built-in system to immediately check data when a new case is entered into the database. Each case submitted is reviewed for accuracy and completenss in compliance with data collection standards from the National Program of Central Cancer Registries and the American College of Surgeons.

The data is used by a variety of medical professionals and others concerned about cancer. Within the State Department of Health, the data is used to monitor early detection, to determine year-to-year trends that develop, and to determine how Wyoming compares to the rest of the nation. The Department of Health also uses the data to plan and evaluate the effectiveness of its cancer control programs such as the Breast and Cervical Cancer Early Detection Program. Outside of the Department of Health, the data is used by physicians, hospital administrators, legislators, nonprofit organizations, and the general public. If you have a concern about cancer and would like more information about cancer in your community, please feel free to call the Wyoming Cancer Surveillance Program's Epidemiologist at 307-777-8654. Written correspondence should be addressed to 6101 Yellowstone Rd., Suite 259A, Cheyenne, WY 82002. You may also visit our web site at: http://wdhfs.state.wy.us/cancer.

METHODOLOGY and DEFINITIONS

Data Sources

Incidence

Definition -- Incidence is defined as the number of *new* cases diagnosed during a set time period in a defined population. Incidence is not a representation of risk. The defined time period for this report is 2006 except for the 12-year incidence trend, which used 3-year averages (e.g., 98-00 for 1999 or 00-02 for 2001). The defined population is the state of Wyoming, counties, and Cancer Health Districts (CHD) (see page 13).

Wyoming Data -- The Wyoming Cancer Surveillance Program (WCSP) gathers data on Wyoming residents diagnosed and treated for invasive and in situ tumors. The data is sent to the program's registry by every hospital in the state. Data is also collected from pathology laboratories, clinics, and physician offices throughout the state. The registry has several data exchange agreements with other state registries to enable collection of data on Wyoming residents diagnosed and/or treated outside of Wyoming. Wyoming data for this report includes 2006 cancer cases of Wyoming residents received by WCSP as of August 10, 2008.

National Data -- The National Cancer Institute (NCI) updates cancer statistics annually in a publication called the SEER Cancer Review, also available on SEER STAT, an interactive CD-ROM. NCI monitors cancer statistics to assess progress and to identify population subgroups and geographic areas where cancer control efforts need to be concentrated. Cancer incidence rates are calculated using SEER (Surveillance, Epidemiology, and End Results) software. WCSP used SEER*STAT for this report. **The national SEER rates presented in this report were calculated using 2005 data for whites.** See Appendix A for reference source.

Mortality

Definition -- Mortality is defined as the number of persons who have died during a set time period in a defined population. The time period for this report is the calendar year 2006 for Wyoming rates. The defined population is the state of Wyoming, counties, and Cancer Health Districts (see page 13).

Wyoming Data -- Mortality data is derived from death certificates filed with Wyoming Vital Records Services. By state statute, the certification of the cause of death on the death certificate is completed by the attending physician or by the coroner with the assistance of a physician. Although a number of medical conditions may be listed on the certificate, statistics presented here are based solely on the underlying cause of death. This is defined as the disease or injury that initiated the sequence of events leading directly to death or as the circumstances of the accident or violence that produced the fatal injury. The underlying cause is selected and classified based upon the regulations of the World Health Organization.

National Data -- The National Center for Health Statistics (NCHS), a division of the Centers for Disease Control and Prevention, provides statistical information including the number of cancer deaths in the United States. United States cancer mortality data is available from SEER STAT, an interactive CD-ROM. WCSP used SEER STAT for this report. **The national SEER rates presented in this report were calculated using 2005 data for whites.** See Appendix A for reference source.

Population

Wyoming Data -- Population estimates for Wyoming state and counties were obtained from the Wyoming Department of Administraiton and Information - Economic Analysis Division. Population data for 2006 are estimates for the July 1, 2006 county populations by age, sex, race, and Hispanic origin. Because cancer rates are calculated by dividing the number of cancer cases by a census-generated denominator, rates can be heavily influenced by changes or uncertainties in census counts.

Rates

Age-Adjusted Incidence Rates

Incidence rates include 2006 invasive cases of Wyoming residents, except for bladder cancer which also includes in situ cases. Incidence rates presented are calculated for total cases and separately for males and females. The incidence rates are age-adjusted to the 2000 U.S. standard population using 5-year age groups, and are per 100,000 population. Age-adjustment allows rates to be compared over different time frames and allows rates from one geographic area to be compared with rates from another geographic area that may have differences in age distributions. Any observed differences in age-adjusted incidence rates are not due to differing age structures.

In conformity with the National Cancer Institute's Surveillance, Epidemiology, and End Results (SEER) Program guidelines, the incidence rates excluded the following:

- in situ cases
- basal and squamous cell skins
- cases with unknown age
- cases with unknown gender

Age-Adjusted Mortality Rates

Mortality rates presented are calculated for total cases and separately for males and females. The mortality rates are age-adjusted to the 2000 U.S. standard population using 5-year age groups, and are per 100,000 population. Age-adjustment allows rates to be compared over different time frames and allows rates from one geographic area to be compared with rates from another geographic area that may have differences in age distributions. Any observed differences in age-adjusted incidence rates are not due to differing age structures.

Age-Specific Incidence Rates

An age-specific rate is the rate of cancer found within a certain age group. Age-specific incidence rates were calculated using 5-year age groups and total population (both sexes combined). They are reported per 100,000 population.

Statistical Significance

Z-Statistic

A Z-statistic is used to compare two different rates. This is called "The Difference Between Two Population Proportions." Statistical significance was found if the calculated Z-statistic was found to be greater than 1.65. This provides the equivalence of a 95% confidence interval (see below) and is indicated in the report as "statistically significant" or "significant." The formula used can be found in most statistics books or by calling the WCSP Epidemiologist at (307)777-8654.

Confidence Intervals

A confidence interval is a way of telling how confident we are in the accuracy of a cancer rate. For example, we will often say that the rate of cancer in an area is 130 per 100,000 people and that the confidence interval is 120 to 140 per 100,000. This means that even though we calculated the rate at 130 per 100,000 we would feel better talking about the rate as being between 120 and 140 per 100,000.

Confidence intervals are also used as another way to test statistical significance. If the confidence intervals of two different rates overlap one another, then there is no difference between the two rates. However, if the confidence intervals do not overlap one another then there is statistical significance. This is indicated in the report as "statistically significant" or "significant."

Staging

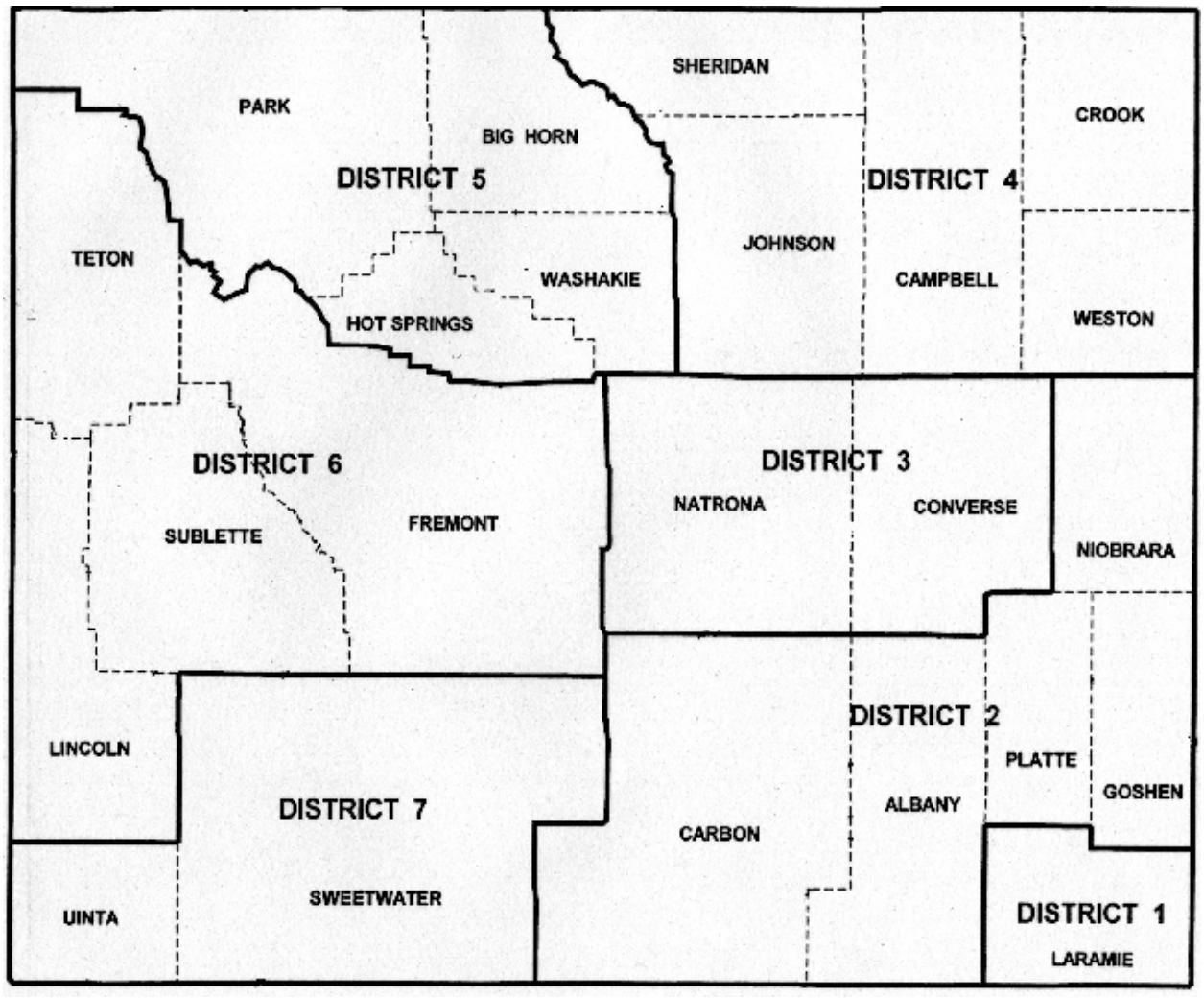
In Situ	cancer has not invaded the organ.
Local Stage	cancer has invaded the organ of origin.
Regional Stage	cancer has invaded beyond the organ of origin by direct extension to adjacent organs/ tissues and/or regional lymph nodes.
Distant Stage	direct extension beyond adjacent organs or tissues or metastases to distant site(s) or distant lymph nodes.
Unstaged	extent of disease or primary site cannot be determined.

Note: Starting in 2004 the WCSP as well as other cancer registries belonging to the National Data Standard setters adopted and began using the Collaborative Staging Method for staging cancer cases. This method uses a new type of algorithm that provides more information concerning the size and extent of the cancer as well as the number of nodes involved.

Cancer Health District

Cancer Health Districts (CHD) were chosen based on geographic location, similarities in geography such as frontier vs. rural, and by total population size. Also taken into consideration were areas of the state that are routinely grouped for data requests and/or cancer cluster studies. This created seven CHD's that were similar in population size thereby eliminating some of the discrepancies in rate calculations that are caused from population size differences. CHD's are used when county data is too sparse to calculate accurate rates.

CHD 1 Laramie County
CHD 2 Albany County, Carbon County, Goshen County, Niobrara County, Platte County
CHD 3 Converse County, Natrona County
CHD 4 Campbell County, Crook County, Johnson County, Sheridan County, Weston County
CHD 5 Big Horn County, Hot Springs County, Park County, Washakie County
CHD 6 Fremont County, Lincoln County, Sublette County, Teton County
CHD 7 Sweetwater County, Uinta County



State of Wyoming - 2006

Cancer Incidence and Mortality by Gender and Age (All Sites)
Cancer Incidence and Mortality by Race and Ethnicity (Top 15 Sites)

Wyoming Incidence[1] for 2006: Cases by Gender and Age (All Sites)

	Male	Female	Total	00-04	05-09	10-14	15-19	20-24	25-29	30-34
Anus	3	5	8	0	0	0	0	0	0	0
Bladder	105	26	131	0	0	0	0	0	0	0
Bones and Joints	1	2	3	0	1	0	0	0	1	0
Brain/CNS	19	12	31	1	2	0	1	1	1	2
Breast	2	310	312	0	0	0	0	0	3	3
Cervix	0	24	24	0	0	0	0	0	2	1
Colorectal	138	112	250	0	0	0	0	0	1	2
Esophagus	26	3	29	0	0	0	0	0	0	0
Eye	0	0	0	0	0	0	0	0	0	0
Gallbladder	1	0	1	0	0	0	0	0	0	0
Hodgkin	8	5	13	0	0	0	1	1	2	2
Ill-Defined	37	33	70	0	0	0	0	0	1	0
Kidney	57	21	78	0	0	1	0	0	0	1
Larynx	18	2	20	0	0	0	0	0	0	0
Leukemia	31	13	44	0	0	1	3	2	0	1
Liver	18	12	30	0	0	1	0	1	0	0
Lung	127	124	251	0	0	0	0	0	0	0
Melanoma	55	38	93	0	0	0	0	2	0	6
Myeloma	13	5	18	0	0	0	0	0	0	0
Nasal	4	2	6	0	0	0	0	0	1	0
Non-Hodgkin Lymphoma	54	42	96	0	0	0	0	2	0	1
Oral Cavity	37	11	48	0	0	0	0	1	0	0
Other Biliary	5	6	11	0	0	0	0	0	0	0
Other Digestive	0	4	4	0	0	0	0	0	0	0
Other Endocrine including Thymus	1	0	1	0	0	0	0	0	0	0
Other Female	0	4	4	0	0	0	0	0	0	0
Other Male	1	0	1	0	0	0	0	0	0	0
Other Skin	3	3	6	0	0	0	0	1	0	1
Other Respiratory	1	0	1	0	0	0	0	0	0	0
Other Urinary	1	2	3	0	0	0	0	0	0	0
Ovary	0	35	35	0	0	0	0	1	0	0
Pancreas	32	27	59	0	0	0	0	0	0	0
Prostate	457	0	457	0	0	0	0	0	0	0
Small Intestine	3	4	7	0	0	0	0	0	0	0
Soft Tissue including Heart	8	5	13	1	0	0	1	1	1	1
Stomach	14	6	20	0	0	0	0	0	0	0
Testis	14	0	14	0	0	0	2	3	2	1
Thyroid	16	57	73	0	0	1	0	1	2	4
Uterine	0	56	56	0	0	0	0	0	0	1
Mesothelioma	7	1	8	0	0	0	0	0	0	0
All sites	1,316	1,013	2,329	2	3	4	8	17	17	27

[1] See page 10 for a definition of incidence.

	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
Anus	0	0	0	0	4	0	0	1	1	1	1
Bladder	2	2	2	9	10	17	20	19	13	23	14
Bones and Joints	0	0	0	0	0	0	0	0	0	0	1
Brain/CNS	3	1	4	4	1	1	4	2	2	1	0
Breast	5	16	42	34	42	41	41	29	19	24	13
Cervix	4	3	2	4	2	3	0	0	0	2	1
Colorectal	3	5	14	11	20	22	29	36	46	33	28
Esophagus	0	1	1	2	4	4	3	7	5	2	0
Eye	0	0	0	0	0	0	0	0	0	0	0
Gallbladder	0	1	0	0	0	0	0	0	0	0	0
Hodgkin	0	1	1	3	0	1	0	0	0	0	1
Ill-Defined	0	1	1	8	4	5	3	11	12	13	11
Kidney	1	4	5	7	11	7	12	11	11	7	0
Larynx	1	0	1	1	2	3	5	0	1	3	3
Leukemia	0	1	4	2	10	5	6	4	3	1	1
Liver	0	0	2	7	1	1	2	4	4	3	4
Lung	0	0	8	7	22	39	37	44	55	26	13
Melanoma	3	5	5	12	10	12	7	8	11	6	6
Myeloma	0	0	1	2	4	1	1	3	1	4	1
Nasal	0	0	1	0	2	0	1	1	0	0	0
Non-Hodgkin Lymphoma	2	5	4	10	12	17	8	12	7	8	8
Oral Cavity	0	1	8	5	8	7	5	2	6	3	2
Other Biliary	1	0	1	1	2	0	1	0	1	2	2
Other Digestive	0	1	0	0	0	2	0	1	0	0	0
Other Endocrine including Thymus	1	0	0	0	0	0	0	0	0	0	0
Other Female	0	0	0	0	0	0	0	2	0	1	1
Other Male	0	0	0	0	0	1	0	0	0	0	0
Other Skin	0	0	0	1	0	0	1	0	1	1	0
Other Respiratory	0	0	0	0	0	0	0	1	0	0	0
Other Urinary	0	0	0	1	0	0	0	0	1	1	0
Ovary	2	3	0	3	5	4	6	3	1	3	4
Pancreas	0	1	3	4	6	4	6	11	10	8	6
Prostate	0	4	12	28	76	70	96	75	54	32	10
Small Intestine	0	0	1	0	1	0	2	1	2	0	0
Soft Tissue including Heart	0	1	1	1	3	1	1	0	0	0	0
Stomach	1	0	2	0	2	2	2	2	4	4	1
Testis	3	1	0	2	0	0	0	0	0	0	0
Thyroid	8	12	8	6	3	4	12	4	3	3	2
Uterine	2	4	3	4	11	8	6	5	7	2	3
Mesothelioma	0	0	0	0	2	2	1	1	0	2	0
All sites	42	74	137	179	280	284	318	300	281	219	137

Wyoming Mortality[1] for 2006: Deaths by Gender and Age (All Sites)

	Male	Female	Total	00-04	05-09	10-14	15-19	20-24	25-29	30-34
Anus	0	2	2	0	0	0	0	0	0	0
Bladder	19	5	24	0	0	0	0	0	0	0
Bones and Joints	2	1	3	0	0	0	0	0	1	0
Brain/CNS	12	11	23	1	0	0	0	0	0	0
Breast	0	66	66	0	0	0	0	0	0	0
Cervix	0	6	6	0	0	0	0	0	1	0
Colorectal	44	54	98	0	0	0	0	0	1	0
Esophagus	19	4	23	0	0	0	0	0	0	0
Eye	0	0	0	0	0	0	0	0	0	0
Gallbladder	0	1	1	0	0	0	0	0	0	0
Hodgkin	2	2	4	0	0	0	0	0	0	0
Ill-Defined	45	31	76	0	0	0	0	0	0	0
Kidney	11	4	15	0	0	0	0	0	0	0
Larynx	1	1	2	0	0	0	0	0	0	0
Leukemia	28	11	39	0	0	0	0	0	0	0
Liver	13	8	21	0	0	0	0	0	0	0
Lung	125	107	232	0	0	0	0	0	0	0
Melanoma	13	6	19	0	0	0	0	0	0	0
Myeloma	14	5	19	0	0	0	0	0	0	0
Nasal	0	0	0	0	0	0	0	0	0	0
Non-Hodgkin Lymphoma	18	14	32	0	0	0	0	0	0	0
Oral Cavity	7	1	8	0	0	0	0	0	0	0
Other Biliary	5	4	9	0	0	0	0	0	0	0
Other Digestive	1	0	1	0	0	0	0	0	0	0
Other Endocrine including Thymus	3	0	3	0	1	0	0	0	0	0
Other Female	0	3	3	0	0	0	0	0	0	0
Other Male	5	0	5	0	0	0	0	1	1	0
Other Skin	1	1	2	0	0	0	0	0	0	0
Other Respiratory	0	0	0	0	0	0	0	0	0	0
Other Urinary	1	0	1	0	0	0	0	0	0	0
Ovary	0	22	22	0	0	0	0	0	0	0
Pancreas	34	28	62	0	0	0	0	0	0	0
Prostate	58	0	58	0	0	0	0	0	0	0
Small Intestine	0	0	0	0	0	0	0	0	0	0
Soft Tissue including Heart	7	3	10	0	0	0	0	0	1	0
Stomach	8	11	19	0	0	0	0	0	0	0
Testis	3	0	3	0	0	0	0	0	1	0
Thyroid	2	3	5	0	0	0	0	0	0	0
Uterine	0	4	4	0	0	0	0	0	0	0
Mesothelioma	5	0	5	0	0	0	0	0	0	0
All sites	503	419	922	1	1	0	0	1	5	0

[1]See page 10 for definition of mortality.

	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
Anus	0	0	0	1	0	0	0	1	0	0	0
Bladder	0	0	0	3	1	1	2	4	4	5	4
Bones and Joints	0	0	0	0	0	0	1	0	0	0	1
Brain/CNS	0	1	3	1	3	2	4	3	2	1	2
Breast	1	3	6	6	8	7	8	6	5	11	5
Cervix	0	1	1	0	1	0	0	0	0	1	1
Colorectal	0	0	1	9	6	5	17	10	14	13	22
Esophagus	0	0	1	2	1	1	6	6	3	3	0
Eye	0	0	0	0	0	0	0	0	0	0	0
Gallbladder	0	0	0	0	1	0	0	0	0	0	0
Hodgkin	0	0	0	1	0	0	0	0	1	0	2
Ill-Defined	0	0	2	3	6	12	16	12	8	8	9
Kidney	0	0	0	1	3	4	3	2	2	0	0
Larynx	0	0	0	0	0	0	0	0	0	1	1
Leukemia	1	0	1	5	2	4	7	4	4	8	3
Liver	0	0	0	3	0	2	1	6	4	3	2
Lung	0	1	5	9	15	27	40	36	55	23	21
Melanoma	1	1	1	1	2	1	1	2	3	3	3
Myeloma	0	0	0	0	1	5	2	4	3	3	1
Nasal	0	0	0	0	0	0	0	0	0	0	0
Non-Hodgkin Lymphoma	0	0	2	0	4	1	5	2	6	5	7
Oral Cavity	0	0	1	1	0	1	1	0	2	2	0
Other Biliary	0	0	0	0	1	1	0	2	1	1	3
Other Digestive	0	0	0	0	1	0	0	0	0	0	0
Other Endocrine including Thymus	0	0	0	0	1	0	1	0	0	0	0
Other Female	0	0	0	1	0	0	0	0	0	1	1
Other Male	1	0	0	1	0	0	0	0	0	1	0
Other Skin	0	1	0	1	0	0	0	0	0	0	0
Other Respiratory	0	0	0	0	0	0	0	0	0	0	0
Other Urinary	0	0	0	0	0	0	0	0	0	1	0
Ovary	0	0	0	3	4	0	3	4	0	4	4
Pancreas	0	0	2	3	8	2	5	10	18	9	5
Prostate	0	0	0	2	1	3	5	4	13	17	13
Small Intestine	0	0	0	0	0	0	0	0	0	0	0
Soft Tissue including Heart	0	0	1	3	2	0	1	0	0	1	1
Stomach	0	0	1	0	0	3	3	3	6	3	0
Testis	1	0	0	1	0	0	0	0	0	0	0
Thyroid	0	0	1	1	0	0	0	0	2	0	1
Uterine	1	0	0	0	0	0	0	1	1	0	1
Mesothelioma	0	0	0	0	2	2	1	0	0	0	0
All sites	5	8	29	61	74	84	133	122	157	128	113

Wyoming Incidence for 2006: Cases by Race and Ethnicity (Top 15 Sites Only)

	Total	White	African American	Native American	Asian	Other	Ethnicity: Hispanic
All Sites Combined	2,329	2,287	17	16	7	2	89
Bladder (Urinary)	131	130	0	1	0	0	5
Brain/CNS	31	31	0	0	0	0	0
Breast (Female)	312	308	1	2	1	0	10
Colorectal	250	244	3	1	2	0	9
Kidney	78	78	0	0	0	0	3
Leukemia	44	43	1	0	0	0	1
Lung and Bronchus	251	242	3	4	1	1	7
Melanoma	93	92	1	0	0	0	1
Non-Hodgkin Lymphoma	96	93	1	1	0	1	1
Oral Cavity	48	47	0	1	0	0	3
Ovary	35	35	0	0	0	0	1
Pancreas	59	57	0	1	1	0	2
Prostate	457	450	4	2	1	0	20
Thyroid	73	73	0	0	0	0	4
Uterine	56	56	0	0	0	0	2

Wyoming Mortality for 2006: Cases by Race and Ethnicity (Top 15 Sites Only)

	Total	White	African American	Native American	Asian	Other	Ethnicity: Hispanic
All Sites Combined	922	895	5	15	7	0	27
Bladder (Urinary)	24	24	0	0	0	0	1
Brain/CNS	23	23	0	0	0	0	1
Breast (Female)	66	64	0	1	1	0	4
Colorectal	98	96	0	0	2	0	1
Kidney	15	13	1	1	0	0	2
Leukemia	39	39	0	0	0	0	0
Lung and Bronchus	232	223	1	5	3	0	6
Melanoma	19	19	0	0	0	0	0
Non-Hodgkin Lymphoma	32	32	0	0	0	0	1
Oral Cavity	8	8	0	0	0	0	0
Ovary	22	22	0	0	0	0	0
Pancreas	62	59	1	1	1	0	1
Prostate	58	55	0	3	0	0	0
Thyroid	5	5	0	0	0	0	0
Uterine	4	4	0	0	0	0	0

State of Wyoming - 2006

Top Cancer Sites by Gender and Age - Incidence and Mortality

Top Incidence Cancer Sites by Gender - 2006

Total		Male		Female	
Prostate	457	Prostate	457	Breast	310
Breast	312	Colorectal	138	Lung	124
Lung	251	Lung	127	Colorectal	112
Colorectal	250	Bladder	105	Thyroid	57
Bladder	131	Kidney	57	Uterine	56

Top Incidence Sites by Age **(Case count included only if more than 1 case per cancer)**

0-4		5-9		10-14		15-19		20-24	
All Cancers have 1 or less count		Brain/CNS	2	All Cancers have 1 or less count		Leukemai	3	Testis	3
						Testis	2	Leukemia	2
								Melanoma	2
								Non-Hodgkin	2
25-29		**30-34**		**35-39**		**40-44**		**45-49**	
Breast	3	Melanoma	6	Thyroid	8	Breast	16	Breast	42
Cervix	2	Thyroid	4	Breast	5	Thyroid	12	Colorectal	14
Hodgkin	2	Breast	3	Cervix	4	Colorectal	5	Prostate	12
Thyroid	2					Melanoma	5	Lung	8
Testis	2					Non-Hodgkin	5	Oral Cavity	8
50-54		**55-59**		**60-64**		**65-69**		**70-74**	
Breast	34	Prostate	76	Prostate	70	Prostate	96	Prostate	75
Prostate	28	Breast	42	Breast	41	Breast	41	Lung	44
Melanoma	12	Lung	22	Lung	39	Lung	37	Colorectal	36
Colorectal	11	Colorectal	20	Colorectal	22	Colorectal	29	Breast	29
Non-Hodgkin	10	Non-Hodgkin	12			Bladder	20	Bladder	19
75-79		**80-84**		**85+**					
Lung	55	Colorectal	33	Colorectal	28				
Prostaste	54	Prostaste	32	Bladder	14				
Colorectal	46	Lung	26	Breast	13				
Breast	19	Breast	24	Lung	13				
Bladder	13	Bladder	23	Ill-Defined	11				

Top Mortality Cancer Sites by Gender - 2006

Total		Male		Female	
Lung	232	Lung	125	Lung	107
Colorectal	98	Prostate	58	Breast	66
Ill-Defined	76	Ill-Defined	45	Colorectal	54
Breast	66	Colorectal	44	Ill-Defined	31
Pancreas	62	Pancreas	34	Pancreas	28

Top Mortality Sites by Age (Mortality count included only if more than 1 case per cancer)

0-4		5-9		10-14		15-19		20-24	
All Cancers Have 1 or Less Count		All Cancers Have 1 or Less Count		All Cancers Have 1 or Less Count		All Cancers Have 1 or Less Count		All Cancers Have 1 or Less Count	
25-29		**30-34**		**35-39**		**40-44**		**45-49**	
All Cancers Have 1 or Less Count		All Cancers Have 1 or Less Count		All Cancers Have 1 or Less Count		Breast	3	Breast	6
								Lung	5
								Brain/CNS	3
50-54		**55-59**		**60-64**		**65-69**		**70-74**	
Colorectal	9	Lung	15	Lung	27	Lung	40	Lung	36
Lung	9	Breast	8	Ill-Defined	12	Colorectal	17	Ill-Defined	12
Breast	6	Pancreas	8	Breast	7	Ill-Defined	16	Colorectal	10
Leukemia	5	Colorectal	6	Colorectal	5	Breast	8	Pancreas	10
		Ill-Defined	6	Myeloma	5	Leukemia	7	Breast	6
75-79		**80-84**		**85+**					
Lung	55	Lung	23	Colorectal	22				
Pancreas	18	Prostate	17	Lung	21				
Colorectal	14	Colorectal	13	Prostate	13				
Prostate	13	Breast	11	Ill-Defined	9				
Ill-Defined	8	Pancreas	9	Non-Hodgkin	7				

Wyoming Counties - 2006

Incidence and Mortality (All Sites)

Wyoming County Incidence Cases -- 2006 (All Sites)

	Albany	Big Horn	Campbell	Carbon	Converse	Crook	Fremont	Goshen	Hot Springs	Johnson	Laramie	Lincoln
Anus	0	0	0	0	0	0	1	0	0	0	4	0
Bladder	3	5	3	1	5	0	12	5	3	3	30	5
Bones and Joints	1	0	0	0	0	0	1	0	0	0	0	0
Brain/CNS	1	0	0	2	1	0	3	0	0	0	7	1
Breast	21	8	12	6	13	0	16	8	3	9	66	1
Cervix	4	2	0	0	0	0	0	2	0	0	5	0
Colorectal	10	8	14	11	11	1	22	8	6	4	42	10
Esophagus	1	1	3	1	1	0	1	1	0	0	5	1
Eye	0	0	0	0	0	0	0	0	0	0	0	0
Gallbladder	0	0	0	0	0	0	0	0	0	0	0	0
Hodgkin	0	0	2	1	2	0	0	0	0	0	0	2
Ill-Defined	5	2	3	3	2	1	5	3	0	2	14	0
Kidney	3	3	2	2	5	0	5	0	1	3	14	3
Larynx	0	0	1	1	1	0	1	2	0	0	1	0
Leukemia	2	3	4	1	1	0	7	2	1	1	4	0
Liver	0	2	1	1	0	0	2	1	0	0	11	0
Lung	7	4	12	10	9	2	16	6	4	3	60	4
Melanoma	3	1	4	1	4	0	5	2	1	3	19	1
Myeloma	1	0	2	1	0	0	2	0	0	0	1	2
Nose	0	0	0	0	0	0	1	0	0	0	3	0
NHL	6	3	5	2	3	0	3	3	0	1	20	5
Oral Cavity	1	1	0	1	3	0	2	2	1	3	5	0
Other Biliary	1	0	0	0	0	0	0	0	0	0	4	0
Other Digestive	0	0	0	0	1	0	0	1	0	0	0	0
Other Endocrine including Thymus	0	0	0	0	0	0	0	0	0	0	0	0
Other Female	0	0	0	0	0	0	0	1	0	0	0	0
Other Male	0	0	0	1	0	0	0	0	0	0	0	0
Other Skin	0	0	0	0	0	0	0	0	0	0	0	0
Other Respiratory	0	0	1	0	0	0	0	0	0	0	0	0
Other Urinary	0	0	0	0	1	0	0	0	0	0	1	0
Ovary	2	0	0	1	1	0	4	2	2	0	10	2
Pancreas	4	1	1	1	1	0	9	0	2	1	13	0
Prostate	27	14	20	13	21	4	26	15	8	6	99	19
Small Intestine	0	0	0	0	0	0	1	1	0	0	2	1
Soft Tissue including Heart	1	0	0	0	0	0	3	0	0	1	1	1
Stomach	0	0	0	1	2	0	1	3	1	0	1	1
Testis	3	0	0	0	0	0	1	0	0	0	3	2
Thyroid	7	1	1	2	1	0	5	4	0	0	24	0
Uterine	5	2	1	1	2	0	5	2	0	1	9	1
Mesothelioma	1	0	0	0	1	0	0	0	0	0	1	0
All Sites	120	61	92	65	92	8	160	74	33	41	479	62

	Natrona	Niobrara	Park	Platte	Sheridan	Sublette	Sweet water	Teton	Uinta	Washakie	Weston
Anus	0	0	0	0	1	2	0	0	0	0	0
Bladder	15	0	9	4	12	3	6	3	2	2	0
Bones and Joints	0	0	0	0	0	0	1	0	0	0	0
Brain/CNS	4	1	1	0	4	1	4	1	0	0	0
Breast	56	0	19	6	19	2	19	14	5	5	3
Cervix	7	0	1	1	2	0	0	0	0	0	0
Colorectal	28	1	15	5	12	6	17	6	7	6	0
Esophagus	4	1	0	1	2	1	4	0	1	0	0
Eye	0	0	0	0	0	0	0	0	0	0	0
Gallbladder	1	0	0	0	0	0	0	0	0	0	0
Hodgkin	0	0	1	0	1	0	2	0	2	0	0
Ill-Defined	11	1	6	1	5	1	4	0	1	0	0
Kidney	11	0	5	3	10	1	2	2	2	1	0
Larynx	2	0	1	0	3	0	6	0	1	0	0
Leukemia	5	0	2	2	2	2	2	1	2	0	0
Liver	4	0	1	1	3	0	1	0	1	0	1
Lung	50	3	16	6	15	4	7	4	4	2	2
Melanoma	12	0	12	4	10	2	4	1	2	2	0
Myeloma	5	0	0	2	2	0	0	0	0	0	0
Nose	0	0	1	0	0	0	1	0	0	0	0
NHL	18	0	6	1	7	0	5	4	2	2	0
Oral Cavity	9	0	3	0	8	1	3	2	0	3	0
Other Biliary	1	0	0	0	3	0	1	1	0	0	0
Other Digestive	2	0	0	0	0	0	0	0	0	0	0
Other Endocrine including Thymus	1	0	0	0	0	0	0	0	0	0	0
Other Female	1	0	0	0	1	0	1	0	0	0	0
Other Male	0	0	0	0	0	0	0	0	0	0	0
Other Skin	0	1	3	0	0	0	2	0	0	0	0
Other Respiratory	0	0	0	0	0	0	0	0	0	0	0
Other Urinary	0	0	0	0	0	0	1	0	0	0	0
Ovary	3	0	1	2	0	1	0	1	2	1	0
Pancreas	7	0	7	1	5	0	3	1	0	2	0
Prostate	57	3	34	6	25	11	24	11	6	8	0
Small Intestine	0	0	0	0	2	0	0	0	0	0	0
Soft Tissue including Heart	4	0	0	0	1	0	0	1	0	0	0
Stomach	3	0	0	0	2	0	3	1	0	1	0
Testis	1	0	0	0	1	0	2	1	0	0	0
Thyroid	11	0	2	1	4	0	4	5	1	0	0
Uterine	8	0	3	2	3	0	6	1	1	2	0
Mesothelioma	1	0	2	0	1	0	0	1	0	0	0
All Sites	342	11	151	49	166	38	135	62	42	37	6

Wyoming County Mortality Counts -- 2006 (All Sites)

	Albany	Big Horn	Campbell	Carbon	Converse	Crook	Fremont	Goshen	Hot Springs	Johnson	Laramie	Lincoln
Anus	0	0	0	0	0	1	0	0	0	0	0	0
Bladder	2	0	0	0	1	1	4	0	0	1	7	0
Bones and Joints	0	0	0	0	0	0	2	0	1	0	0	0
Brain/CNS	0	0	2	1	1	0	1	1	0	0	2	0
Breast	3	0	0	3	2	1	3	1	0	1	12	3
Cervix	1	0	1	0	0	0	0	0	0	0	1	0
Colorectal	2	2	4	3	4	1	6	5	2	2	14	2
Esophagus	1	0	1	2	0	0	1	3	0	0	2	0
Eye	0	0	0	0	0	0	0	0	0	0	0	0
Gallbladder	0	0	0	0	0	0	1	0	0	0	0	0
Hodgkin	0	0	0	0	0	0	0	0	0	0	1	1
Ill-Defined	4	2	7	3	3	2	3	4	2	2	7	1
Kidney	0	1	0	0	0	0	1	0	0	1	2	3
Larynx	0	0	0	0	1	0	0	0	0	0	0	0
Leukemia	1	4	5	1	0	0	2	2	0	2	9	1
Liver	1	1	1	1	0	0	2	1	0	0	6	0
Lung	8	8	13	6	4	1	21	9	4	3	34	4
Melanoma	0	1	1	0	0	0	2	1	0	1	0	1
Myeloma	1	0	0	0	0	0	2	0	0	0	6	0
Nasal	0	0	0	0	0	0	0	0	0	0	0	0
Non-Hodgkin Lymphoma	1	1	0	0	1	1	3	0	1	2	4	1
Oral Cavity	0	0	0	0	0	0	2	0	0	0	1	1
Other Biliary	1	0	0	0	0	0	0	1	0	0	1	0
Other Digestive	0	0	0	0	0	0	0	0	0	0	1	0
Other Endocrine including Thymus	0	0	0	1	0	0	1	0	0	0	0	0
Other Female	0	0	0	0	0	0	1	0	0	0	1	0
Other Male	1	1	0	0	0	0	0	0	0	0	0	0
Other Skin	0	0	0	0	0	0	0	0	0	0	0	0
Other Respiratory	0	0	0	0	0	0	0	0	0	0	0	0
Other Urinary	0	0	0	0	0	0	0	0	0	0	1	0
Ovary	2	0	1	0	1	0	0	0	0	1	7	0
Pancreas	6	3	0	4	1	1	7	2	1	0	15	1
Prostate	1	2	2	0	0	1	6	2	1	1	9	1
Small Intestine	0	0	0	0	0	0	0	0	0	0	0	0
Soft Tissue including Heart	0	0	0	0	0	0	0	0	0	0	2	2
Stomach	0	0	2	0	2	0	2	2	0	0	2	1
Testis	1	1	0	0	0	0	0	0	0	0	0	0
Thyroid	0	0	0	0	0	0	1	1	0	0	0	0
Uterine	0	0	0	1	0	0	0	0	0	0	0	0
Mesothelioma	1	0	1	0	0	0	0	0	0	0	0	0
All Sites	37	26	41	26	21	10	74	35	12	17	147	23

	Natrona	Niobrara	Park	Platte	Sheridan	Sublette	Sweet water	Teton	Uinta	Washakie	Weston
Anus	1	0	0	0	0	0	0	0	0	0	0
Bladder	5	0	0	0	0	0	0	1	1	1	0
Bones and Joints	0	0	0	0	0	0	0	0	0	0	0
Brain/CNS	2	0	4	0	4	0	2	1	0	2	0
Breast	17	1	5	3	3	0	3	1	2	1	1
Cervix	2	0	1	0	0	0	0	0	0	0	0
Colorectal	8	1	12	1	13	2	5	2	4	2	1
Esophagus	3	1	1	1	1	0	3	0	2	0	0
Eye	0	0	0	0	0	0	0	0	0	0	0
Gallbladder	0	0	0	0	0	0	0	0	0	0	0
Hodgkin	0	0	0	0	0	0	1	0	0	1	0
Ill-Defined	12	1	2	0	8	2	8	1	1	0	1
Kidney	3	0	0	0	1	0	2	0	1	0	0
Larynx	1	0	0	0	0	0	0	0	0	0	0
Leukemia	1	0	0	1	4	1	1	0	3	1	0
Liver	2	0	2	0	0	0	1	1	1	0	1
Lung	46	1	13	7	23	3	10	6	2	1	5
Melanoma	2	1	1	1	0	1	2	1	1	0	2
Myeloma	1	0	3	2	1	0	1	1	0	0	1
Nasal	0	0	0	0	0	0	0	0	0	0	0
Non-Hodgkin Lymphoma	6	0	1	4	3	0	2	0	0	1	0
Oral Cavity	1	0	0	1	0	1	1	0	0	0	0
Other Biliary	2	0	1	0	1	0	1	1	0	0	0
Other Digestive	0	0	0	0	0	0	0	0	0	0	0
Other Endocrine including Thymus	1	0	0	0	0	0	0	0	0	0	0
Other Female	0	0	1	0	0	0	0	0	0	0	0
Other Male	1	0	0	0	1	0	0	0	1	0	0
Other Skin	1	0	1	0	0	0	0	0	0	0	0
Other Respiratory	0	0	0	0	0	0	0	0	0	0	0
Other Urinary	0	0	0	0	0	0	0	0	0	0	0
Ovary	2	0	2	1	0	0	1	0	3	1	0
Pancreas	7	0	4	0	3	1	3	0	2	1	0
Prostate	13	2	3	5	3	1	2	1	1	0	1
Small Intestine	0	0	0	0	0	0	0	0	0	0	0
Soft Tissue including Heart	0	0	2	1	1	0	1	0	0	0	1
Stomach	3	0	1	1	0	0	1	1	1	0	0
Testis	0	0	0	0	1	0	0	0	0	0	0
Thyroid	1	0	2	0	0	0	0	0	0	0	0
Uterine	0	1	1	1	0	0	0	0	0	0	0
Mesothelioma	0	0	1	0	0	0	2	0	0	0	0
All Sites	144	9	64	30	70	12	53	18	26	12	14

Summary of
All Cancer Sites Combined
and
Top 15 Sites

2006 Wyoming Incidence and Mortality Rates

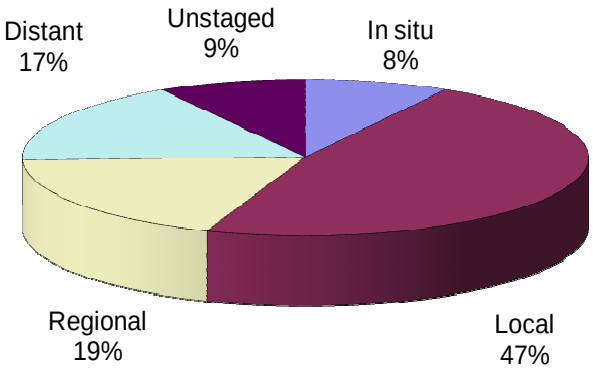
All Sites Combined

Incidence and Mortality Summary

	Male	Female	Total
# Invasive Cases	1,268	1,007	2,275
# In situ Cases	99	112	211
Wyo Incidence	513.1	364.2*	432.7
US Incidence	523.0	416.0	459.0
# Cancer Deaths	503	419	922
Wyo Mortality	208.3	146.2	174.4
US Mortality	223.2	154.9	182.7

* indicates the state rate is significantly different than the national rate
NC = rate not calculated for under 5 cases/deaths

Stage at Diagnosis



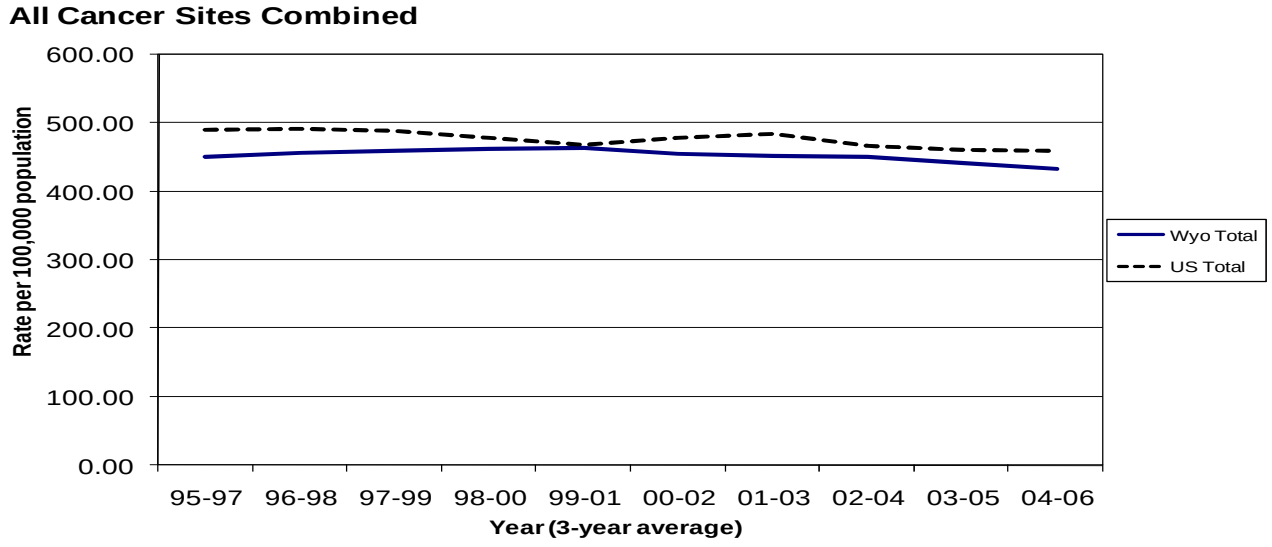
The incidence rates in Wyoming females for all cancer sites was significantly lower than the United States rate. Incidence rates for males and total population were also both lower than the United States rates. All three mortality rates in Wyoming were also lower than the national rates, but were not significant.

The 12-year incidence trend shows that all-site cancer incidence is decreasing slightly since 02-04. The U.S rate appears to be holding steady since 02-04.

The percent of cancer for each stage of diagnosis was virtually unchanged from 2005.

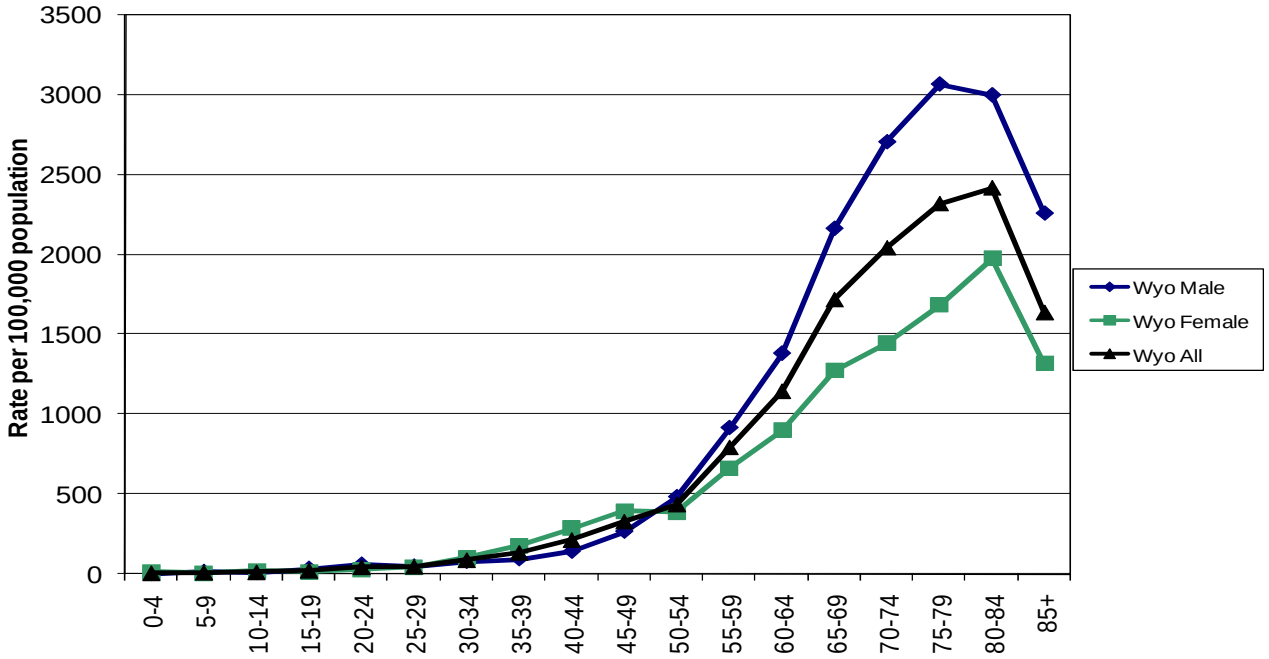
The incidence rate for Cancer Health District (CHD) 7 (364.55) was significantly lower and the rate for CHD 1 was significantly higher (507.73) than the state rate (440.02) for 2002-2006. For mortality rates, CHD 6 (136.67) was significantly lower than the state rate (166.64).

12-Year Incidence Trend



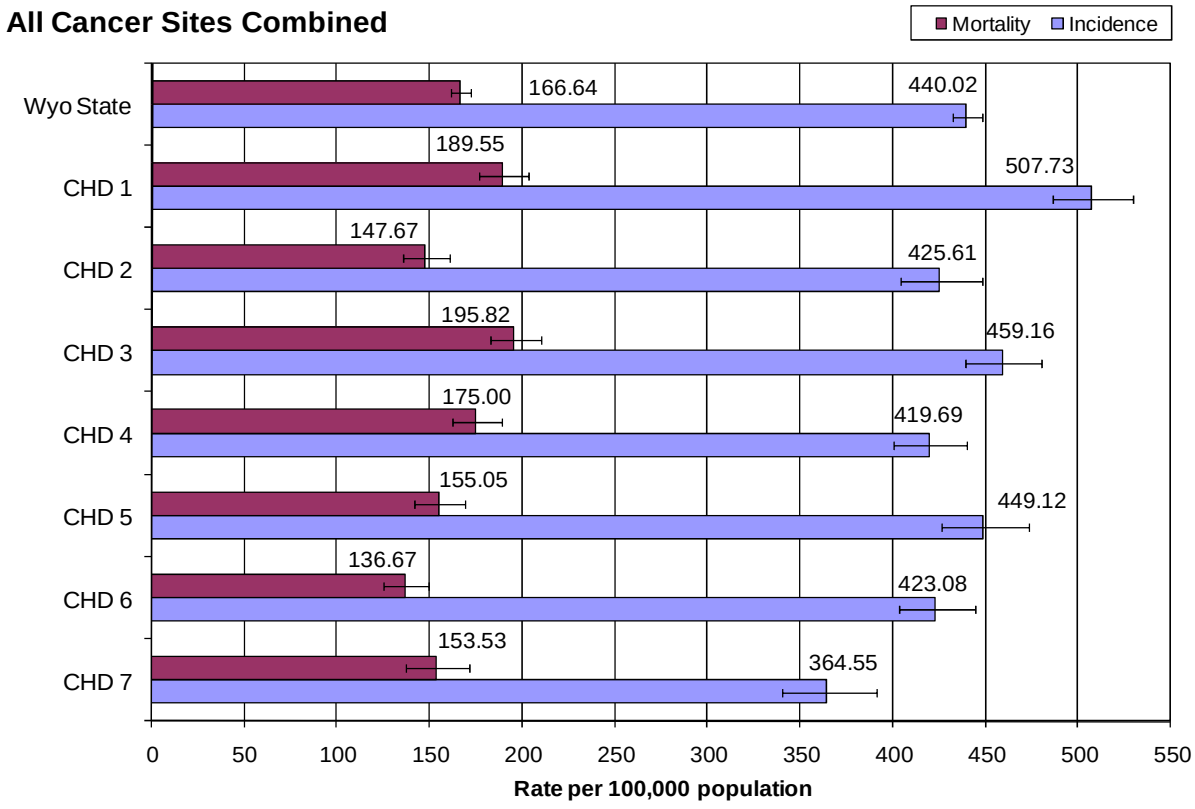
Age-Specific Incidence Rates - 2006

All Cancer Sites Combined



Cancer Health District Incidence and Mortality
5-Year Average, 2002-2006

All Cancer Sites Combined



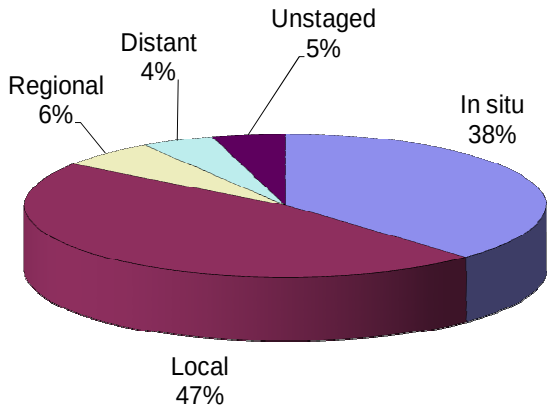
Bladder (Urinary)

Incidence and Mortality Summary

	Male	Female	Total
# Invasive Cases	50	15	65
# In situ Cases	48	6	54
Wyo Incidence	42.7	9.1	24.6
US Incidence	39.9	9.4	22.6
# Cancer Deaths	19	5	24
Wyo Mortality	8.3	1.7	4.6
US Mortality	7.9	2.2	4.5

* indicates the state rate is significantly different than the national rate
NC = rate not calculated for under 5 cases/deaths

Stage at Diagnosis



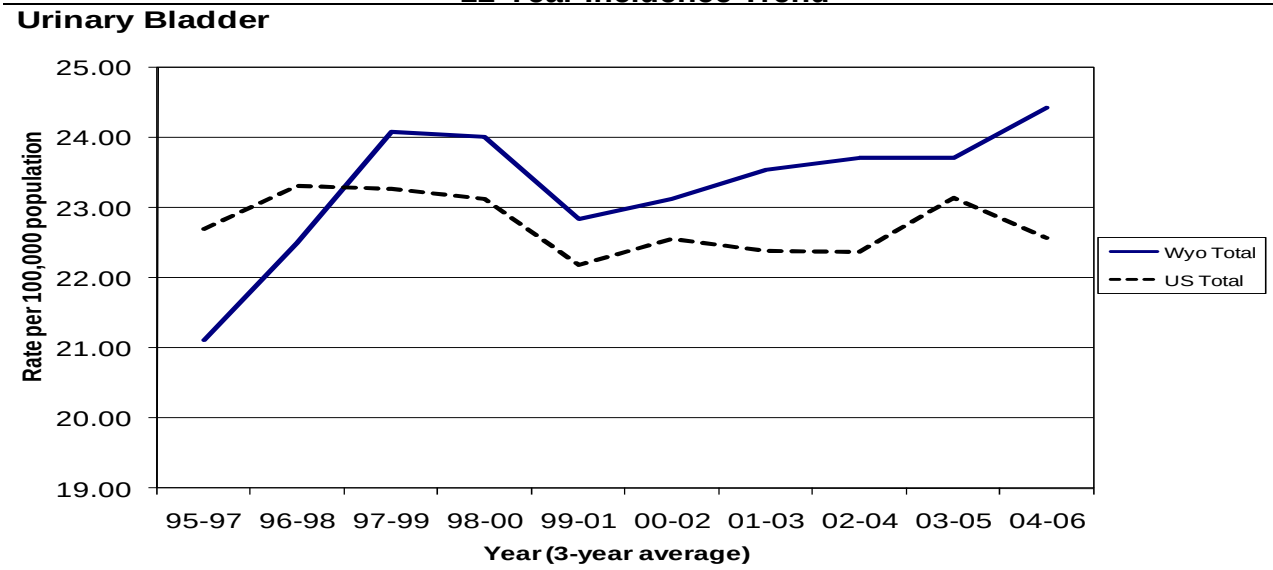
The incidence rates in Wyoming for bladder cancer in males and total population were higher than the national rates in 2006, while the female rate was slightly lower. The mortality rate for Wyoming males and total population were a bit higher than the national rates, whereas the rate for females was lower than the national rate. None of these differences were significant.

The 12-year incidence trend for bladder cancer in Wyoming seems to be on the increase since 03-05, while the U.S. rate shows a decline in the same time period.

While the percent of bladder cancers diagnosed as local increased by 8%, the percentage of diagnoses in the other stages were basically unchanged from 2005 to 2006.

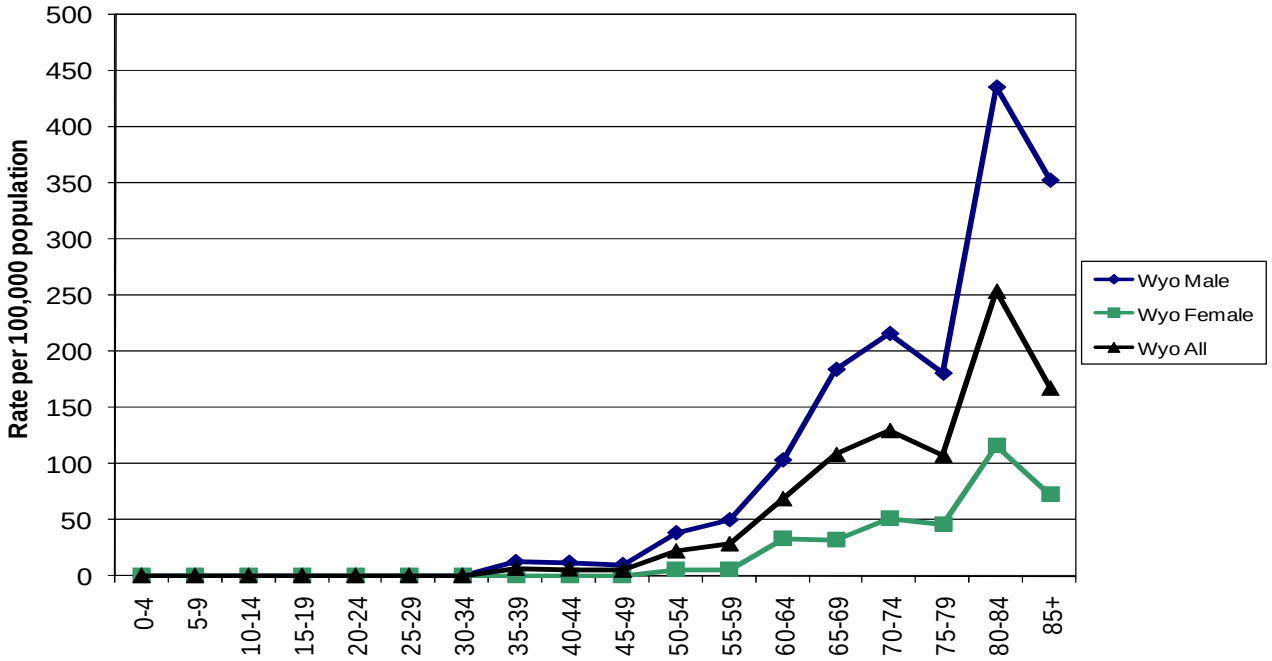
No statistically significant differences were found between CHD's and state rate for incidence or mortality.

12-Year Incidence Trend



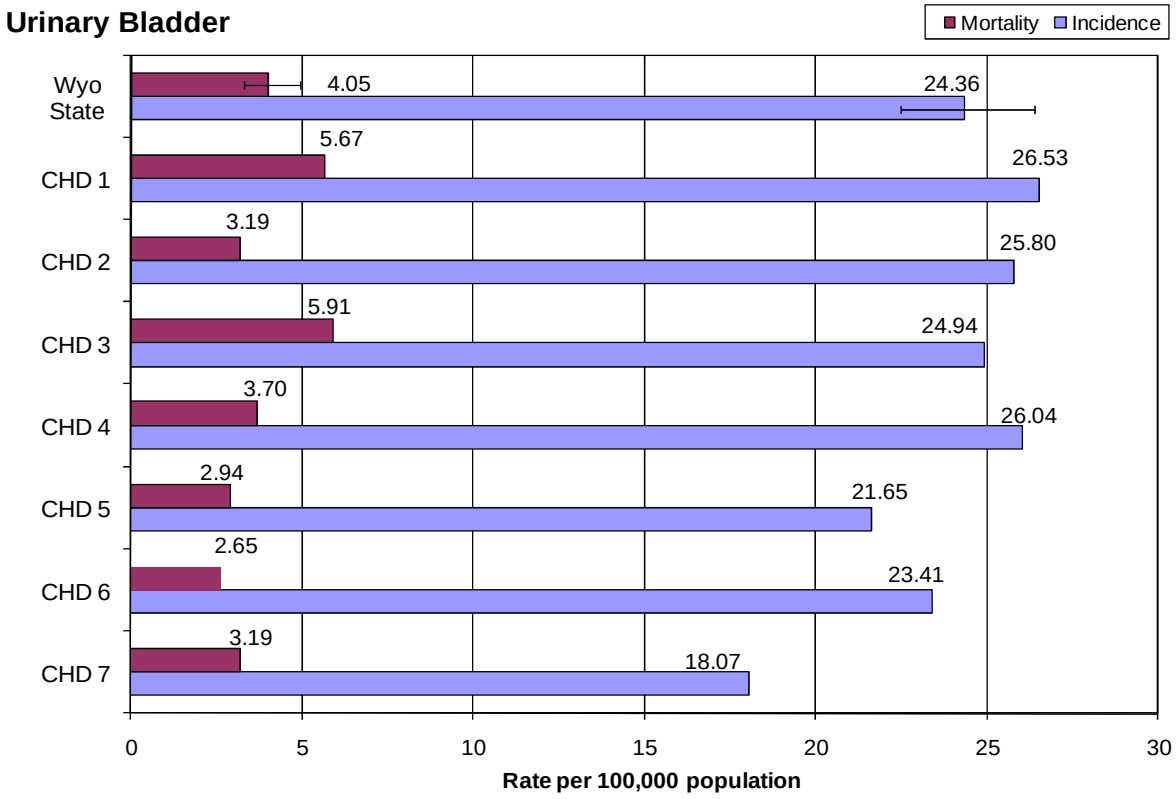
Age-Specific Incidence Rates - 2006

Bladder (Urinary)



Cancer Health District Incidence and Mortality
5-Year Average, 2002-2006

Urinary Bladder



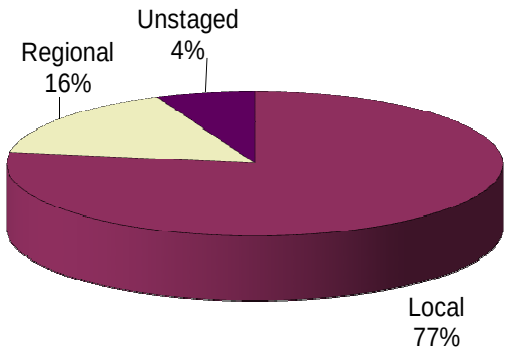
Brain/CNS

Incidence and Mortality Summary

	Male	Female	Total
# Invasive Cases	19	12	31
Wyo Incidence	7.5	4.6	6.1
US Incidence	8.3	5.9	7.0
# Cancer Deaths	12	11	23
Wyo Mortality	4.7	3.9	4.2
US Mortality	5.7	3.8	4.7

* indicates the state rate is significantly different than the national rate
NC = rate not calculated for under 5 cases/deaths

Stage at Diagnosis



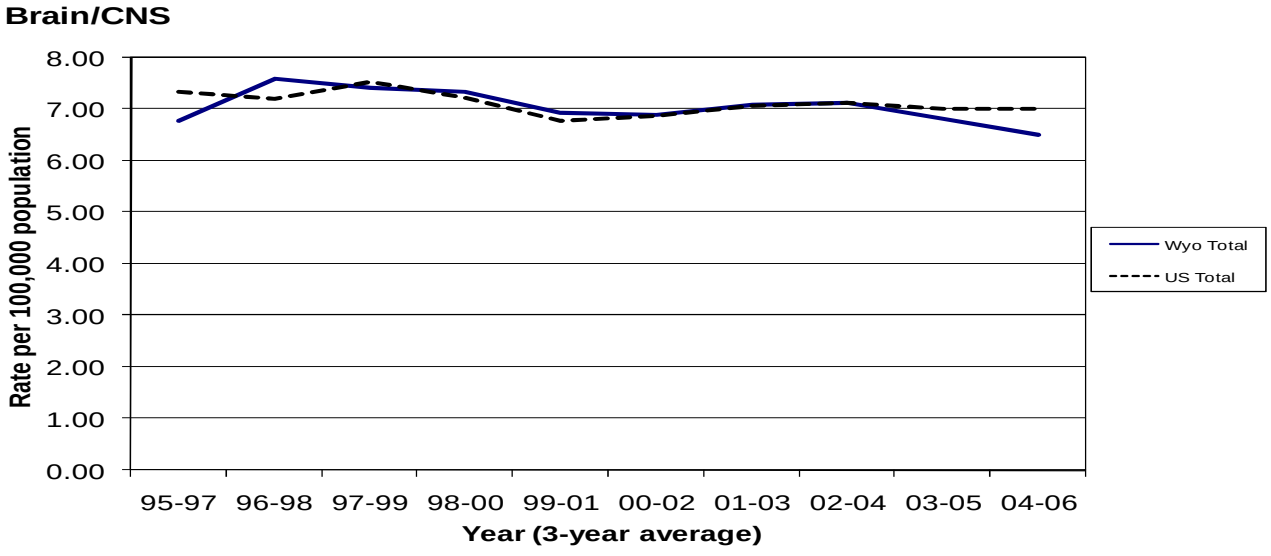
The incidence rates of brain/CNS cancer for males, females, and total population were all slightly lower than the national rates. The mortality rates for males and total population were also lower than the national rates, while the female rate was slightly higher. None of these differences were significant.

The 12-year trend shows a continuation of a decrease of the incidence of brain/CNS cancer that started in 02-04.

A smaller percentage of brain/CNS cancers were diagnosed as local in 2006 than in 2005 (84%), though this difference was not significant

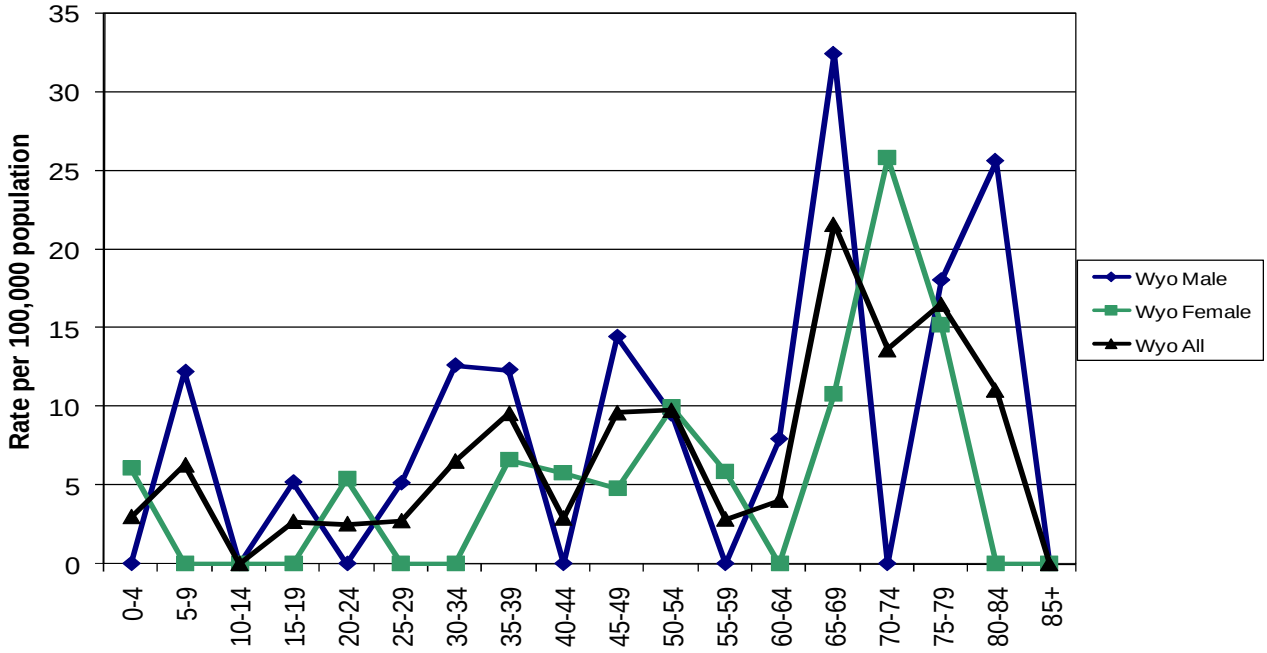
No statistically significant differences were found between the CHD's and state rate for incidence or mortality.

12-Year Incidence Trend



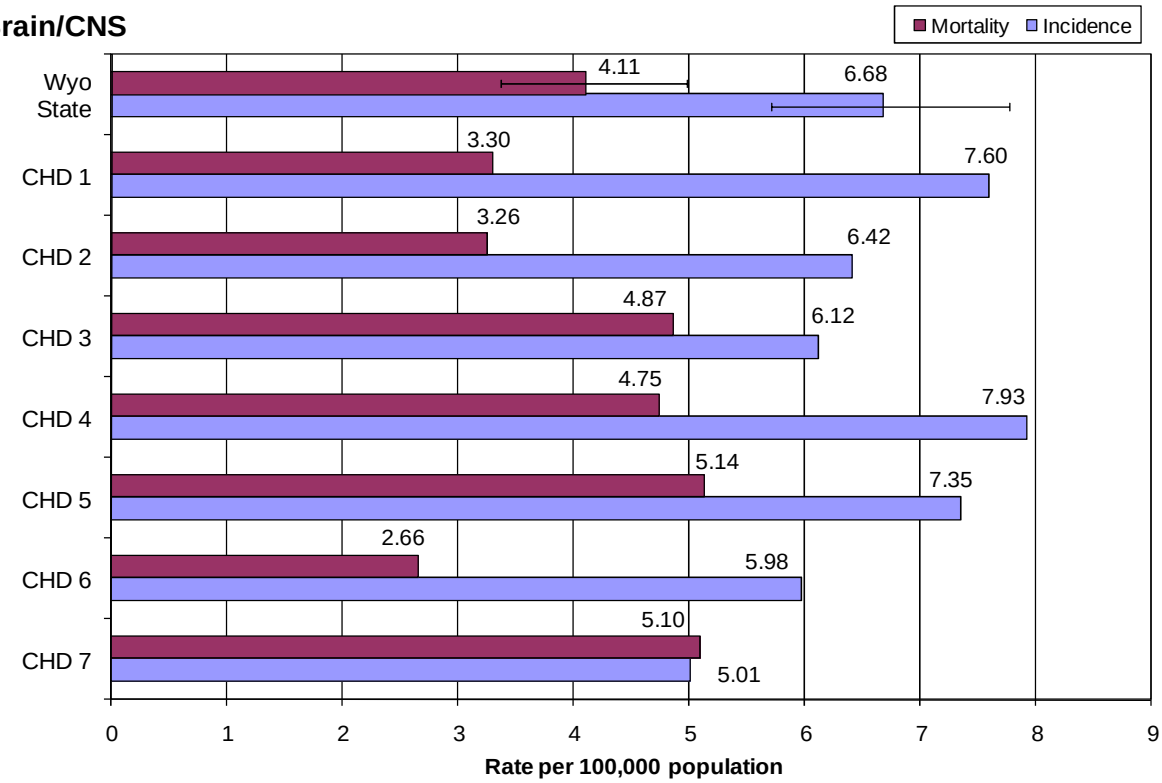
Age-Specific Incidence Rates - 2006

Brain/CNS



Cancer Health District Incidence and Mortality
5-Year Average, 2002-2006

Brain/CNS



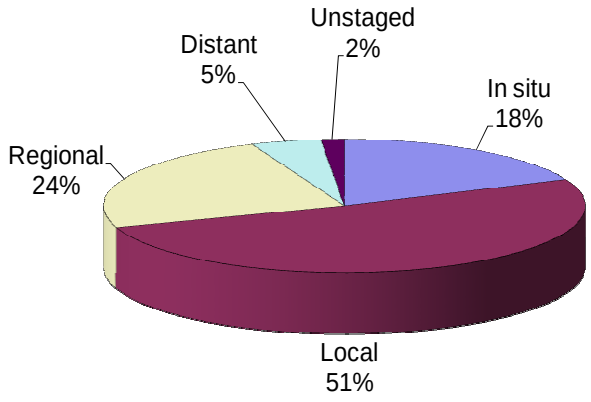
Breast (Female Only)

Incidence and Mortality Summary

	Female
# Invasive Cases	310
# In situ Cases	70
Wyo Incidence	109.0
US Incidence	125.7
# Cancer Deaths	66
Wyo Mortality	23.1
US Mortality	23.3

* indicates the state rate is significantly different than the national rate
NC = rate not calculated for under 5 cases/deaths

Stage at Diagnosis



The incidence and mortality rates of female breast cancer in Wyoming were both lower than the United States rates. However, these differences were not statistically significant.

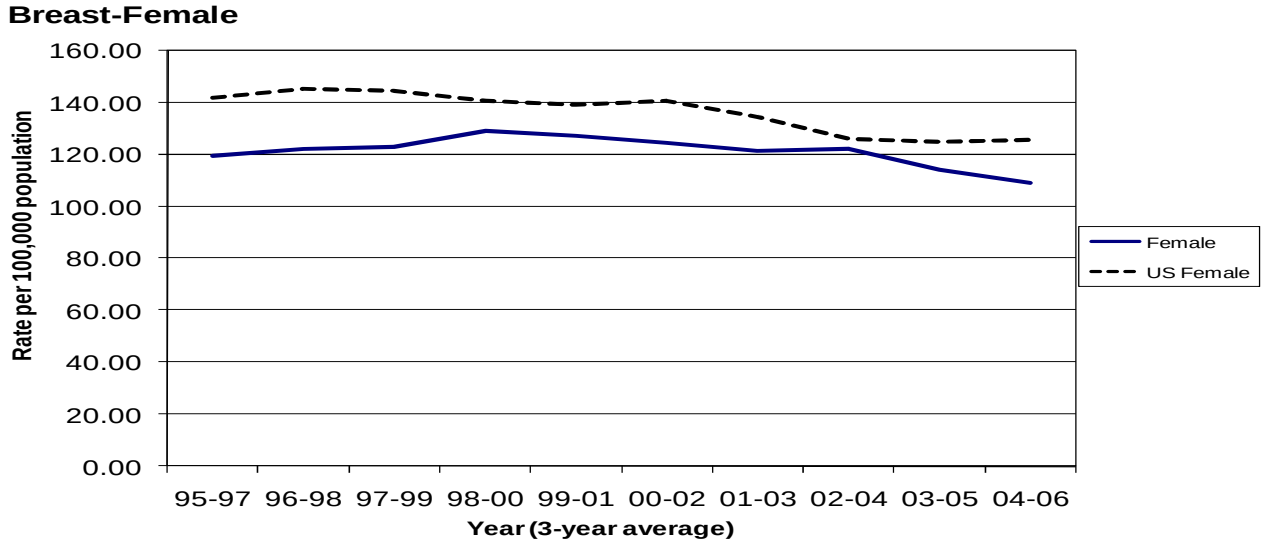
The 12-year incidence trend shows a decrease in the Wyoming rate since 02-04. The national rate appears to be leveling off since 02-04.

A higher percent of breast cancers were diagnosed at the local stage in 2006 than in 2005 (43%), all other stages were virtually unchanged.

The incidence of breast cancer in females in CHD 7 was significantly lower (86.14) than the state rate (115.30) from 2002-2006. No statistically significant differences were found for mortality.

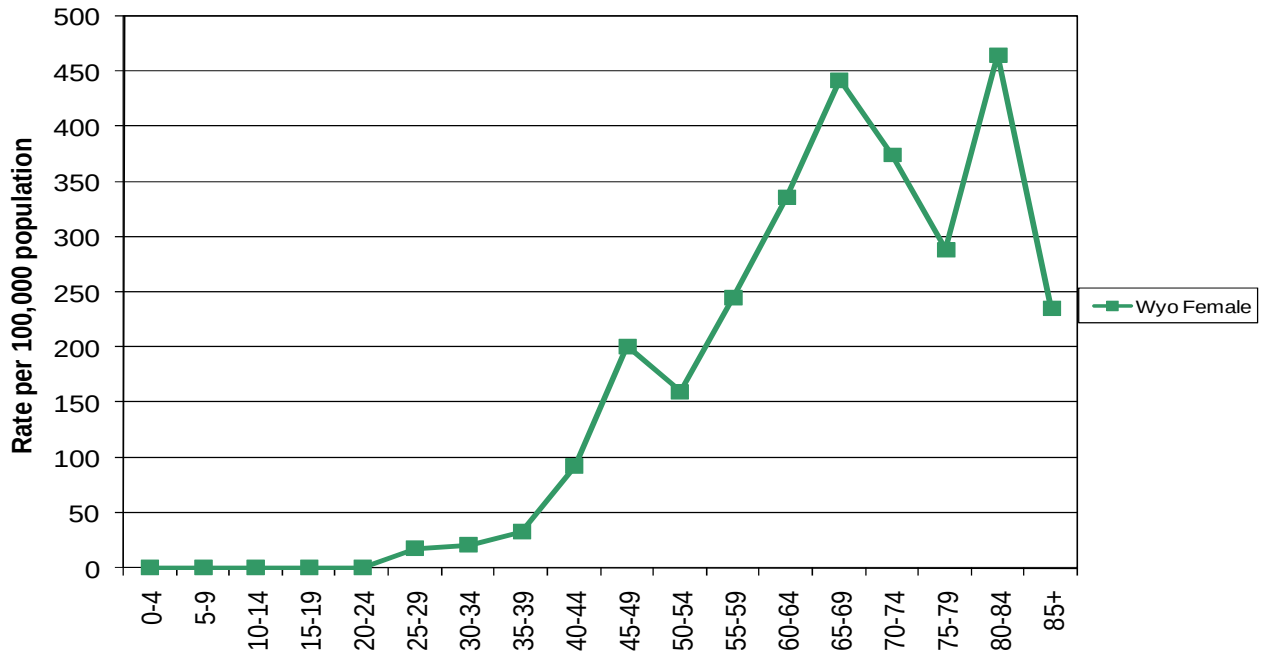
There were 2 cases of male breast cancer reported in Wyoming in 2006.

12-Year Incidence Trend



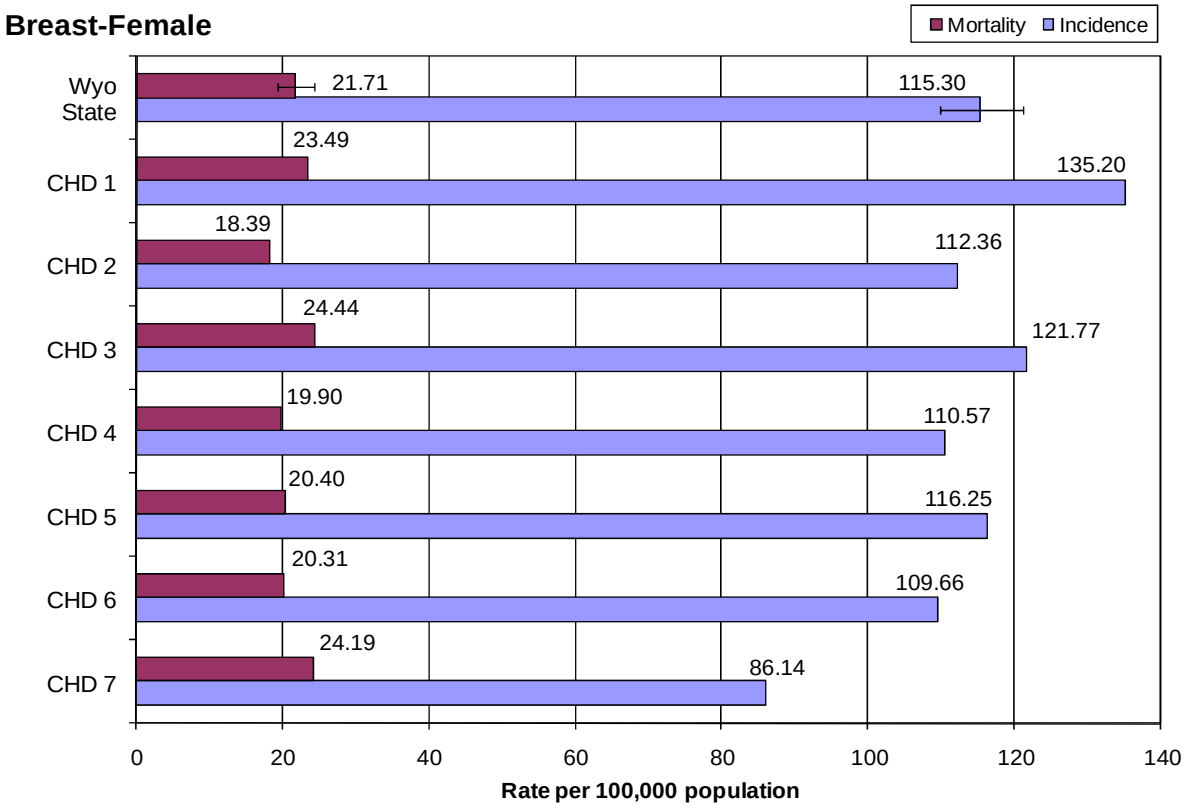
Age-Specific Incidence Rates - 2006

Breast-Female



Cancer Health District Incidence and Mortality
5-Year Average, 2002-2006

Breast-Female



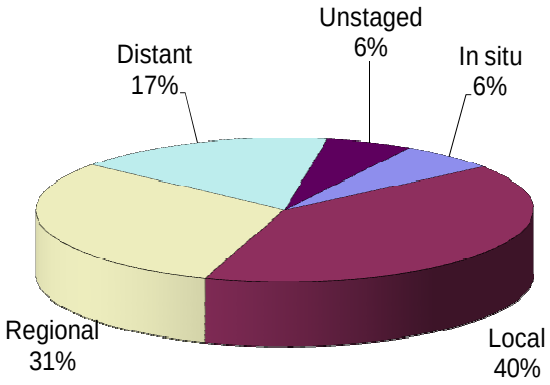
Colorectal

Incidence and Mortality Summary

	Male	Female	Total
# Invasive Cases	138	112	250
# In situ Cases	7	10	17
Wyo Incidence	57.4	40.5	48.0
US Incidence	54.8	41.0	46.9
# Cancer Deaths	44	54	98
Wyo Mortality	18.4	18.0	18.4
US Mortality	20.4	14.1	16.8

* indicates the state rate is significantly different than the national rate
NC = rate not calculated for under 5 cases/deaths

Stage at Diagnosis



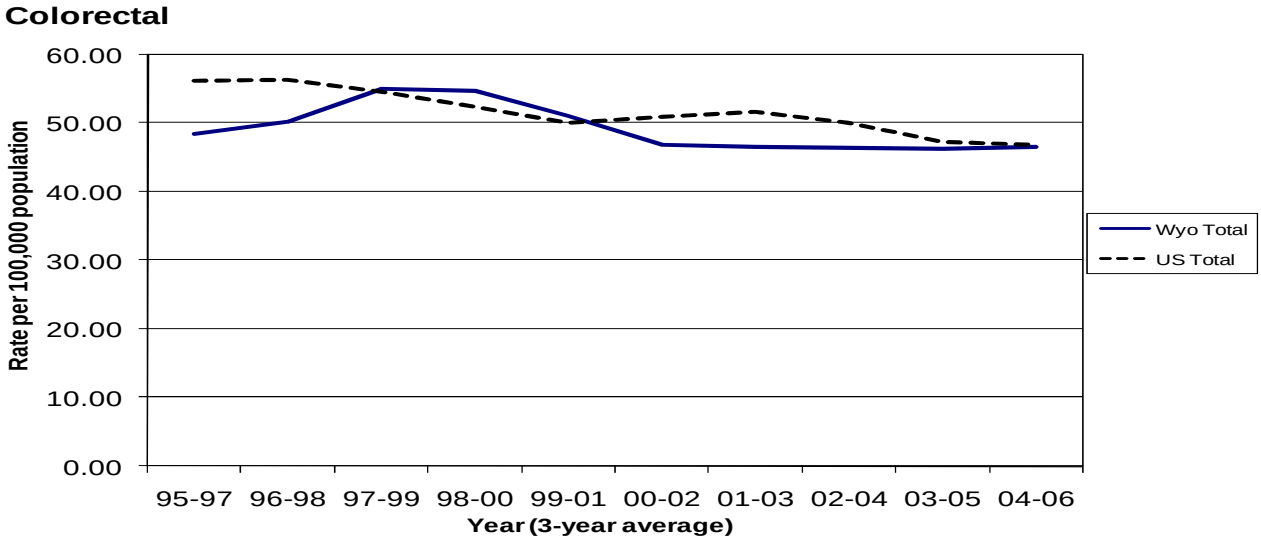
The Wyoming incidence rates for males and total population were both higher than the national rate, whereas the female rate was lower. The mortality rates for males was lower, while the rates for females and total population were both higher than the national mortality rates. None of these differences were statistically significant.

The incidence rates for Wyoming appear to have basically plateaued since 00-02. Nationally, the rate has been decreasing since 01-03.

The precentage of colorectal cases diagnosed at each stage in 2006 was virtually unchanged from 2005.

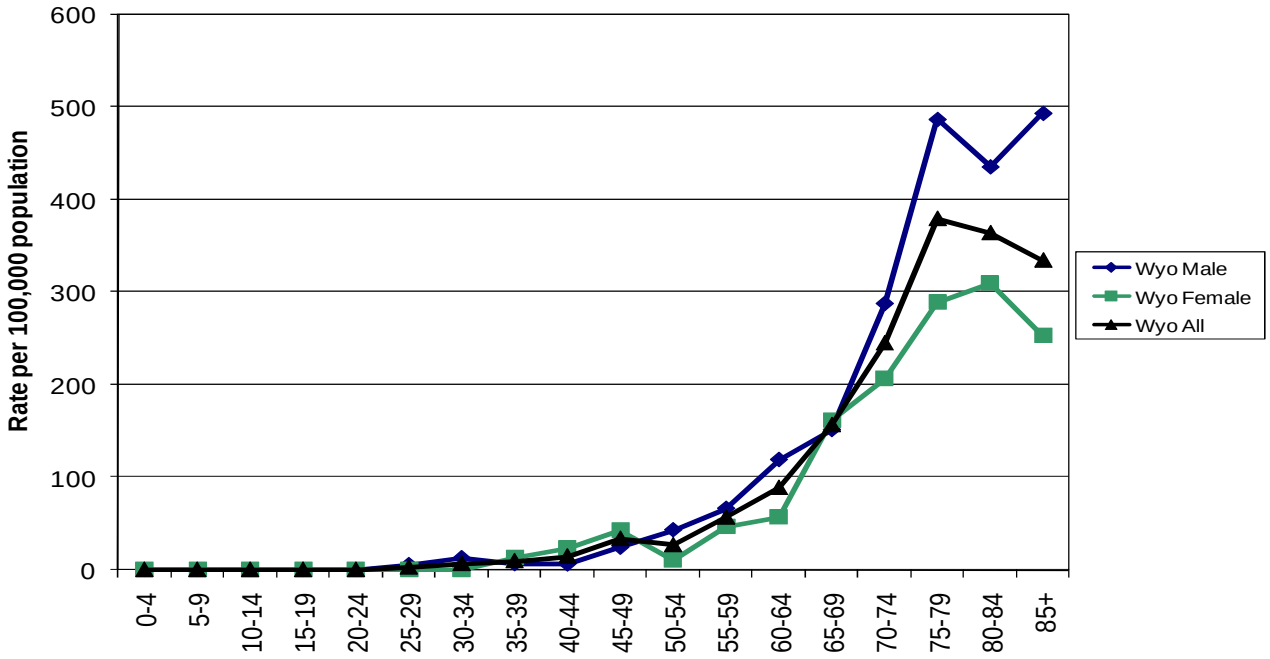
No statistically significant differences were found between the CHD's and state rate for incidence or mortality.

12-Year Incidence Trend



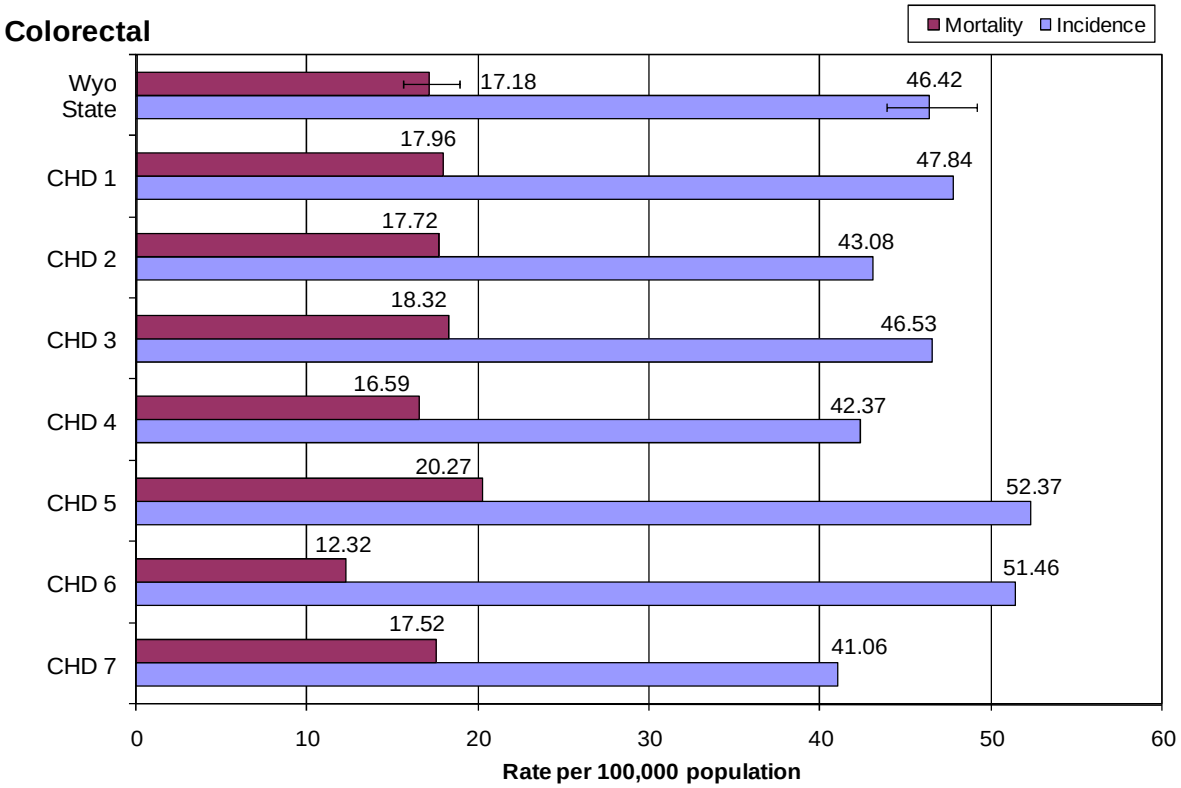
Age-Specific Incidence Rates - 2006

Colorectal



Cancer Health District Incidence and Mortality
5-Year Average, 2002-2006

Colorectal



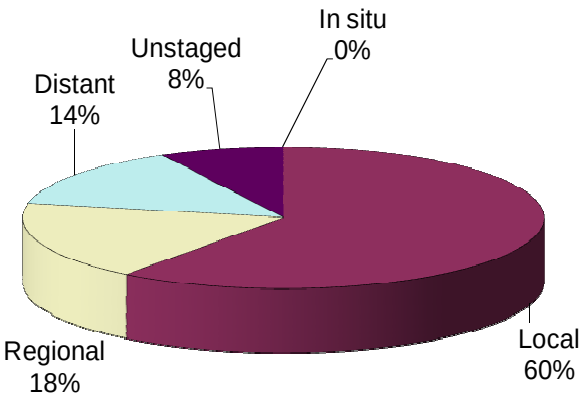
Kidney/Renal Pelvis

Incidence and Mortality Summary

	Male	Female	Total
# Invasive Cases	57	21	78
Wyo Incidence	21.4	8.1	14.6
US Incidence	19.3	9.7	14.1
# Cancer Deaths	11	5	16
Wyo Mortality	3.8	1.5	2.6
US Mortality	6.0	2.8	4.2

* indicates the state rate is significantly different than the national rate
NC = rate not calculated for under 5 cases/deaths

Stage at Diagnosis



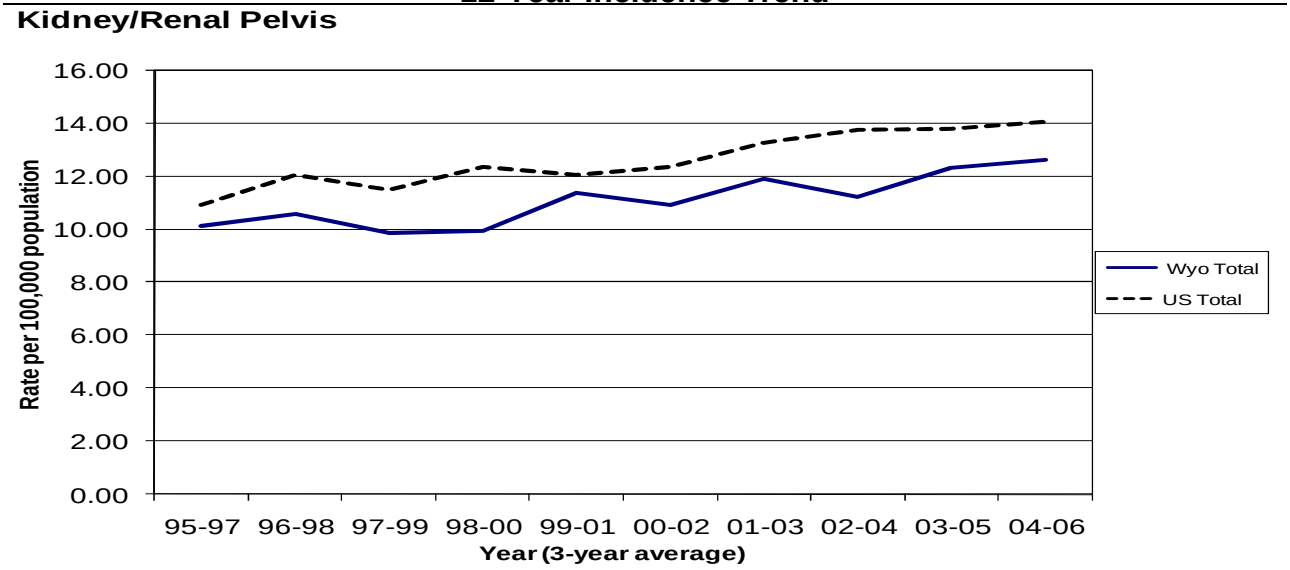
The incidence rates for kidney/renal pelvis cancer were higher in Wyoming males and total population, but lower in females. The mortality rates for males, females, and total population were all lower than the national rates. None of these differences were statistically significant.

The 12-year trend shows an increase in incidence from 03-05 to 04-06. The national rate seems to be on the increase since 02-04.

The percent of kidney/renal pelvis cases diagnosed as local is slightly higher in 2006 than in 2005 (52%). The rest of the stages were basically unchanged from 2005 to 2006.

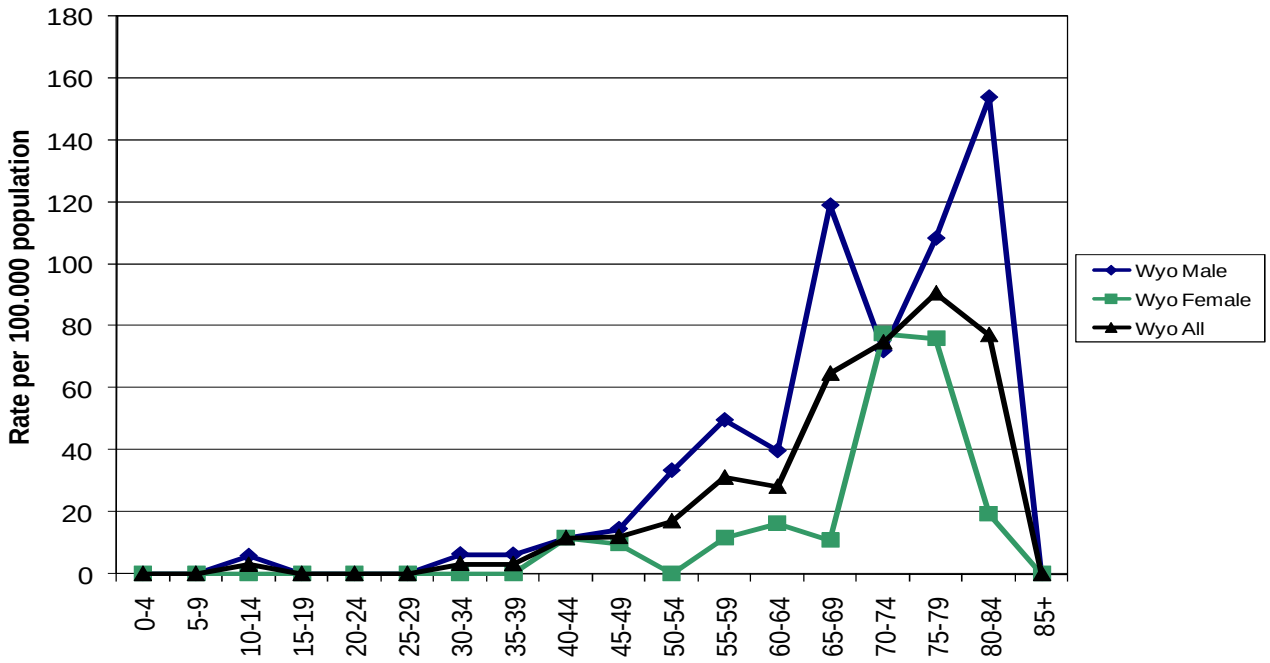
No statistically significant differences were found between CHD's and the state rate for incidence or mortality.

12-Year Incidence Trend



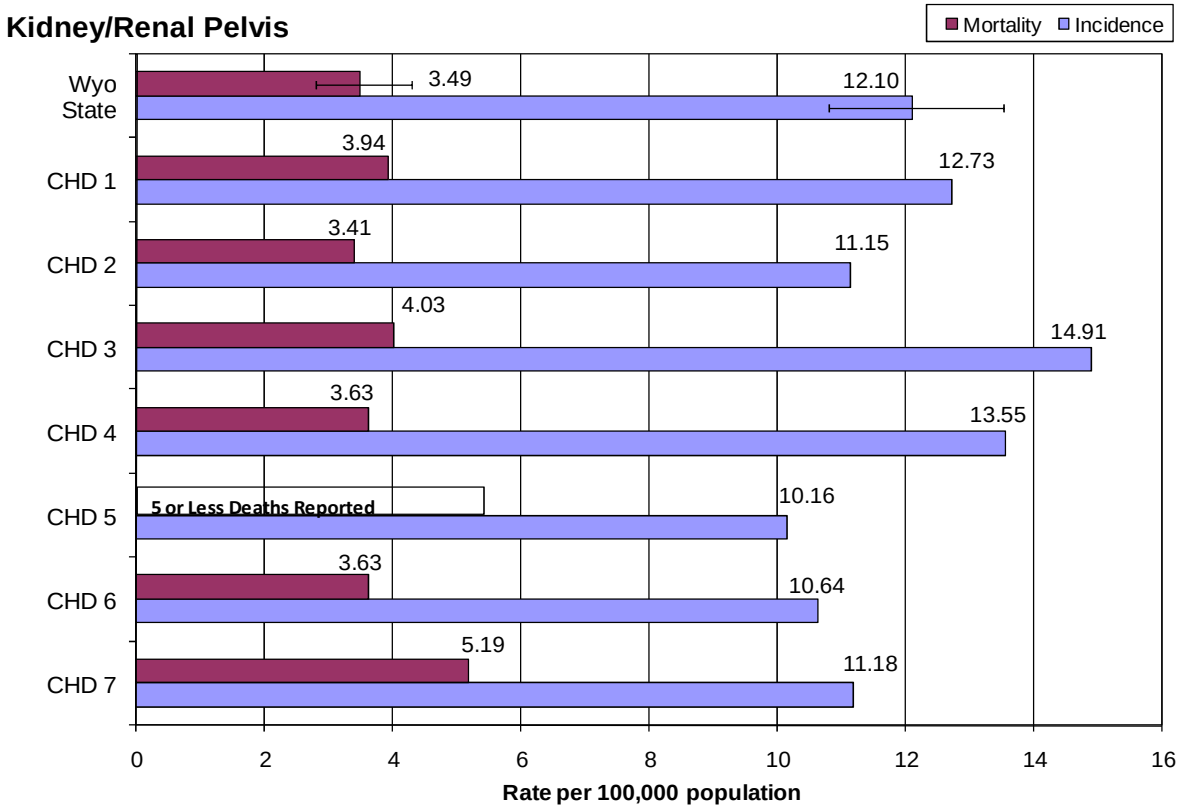
Age-Specific Incidence Rates - 2006

Kidney/Renal Pelvis



Cancer Health District Incidence and Mortality
5-Year Average, 2002-2006

Kidney/Renal Pelvis



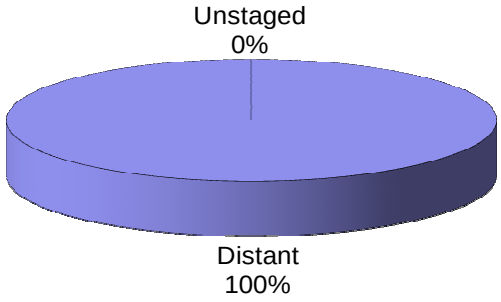
Leukemia

Incidence and Mortality Summary

	Male	Female	Total
# Invasive Cases	31	13	44
Wyo Incidence	11.4	4.5	7.8
US Incidence	15.5	9.1	11.9
# Cancer Deaths	28	11	39
Wyo Mortality	11.1	3.7	7.3
US Mortality	10.0	5.6	7.4

* indicates the state rate is significantly different than the national rate
NC = rate not calculated for under 5 cases/deaths

Stage at Diagnosis

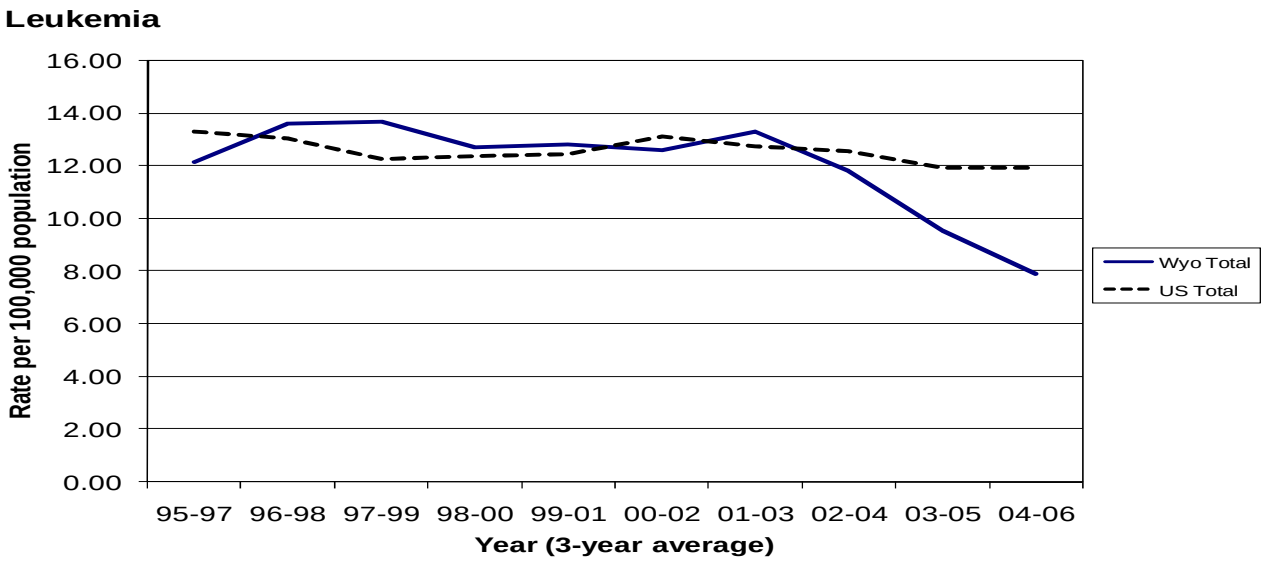


Incidence rates in Wyoming for leukemia were lower than the national rates for males, females, and total population. For mortality, Wyoming males were higher while females were lower, and total population was essentially the same as the national rate. None of these differences were statistically significant.

The incidence trend for Wyoming continues on a decreasing trend that started in 01-03. The national trend also appears to be leveling off since 03-05.

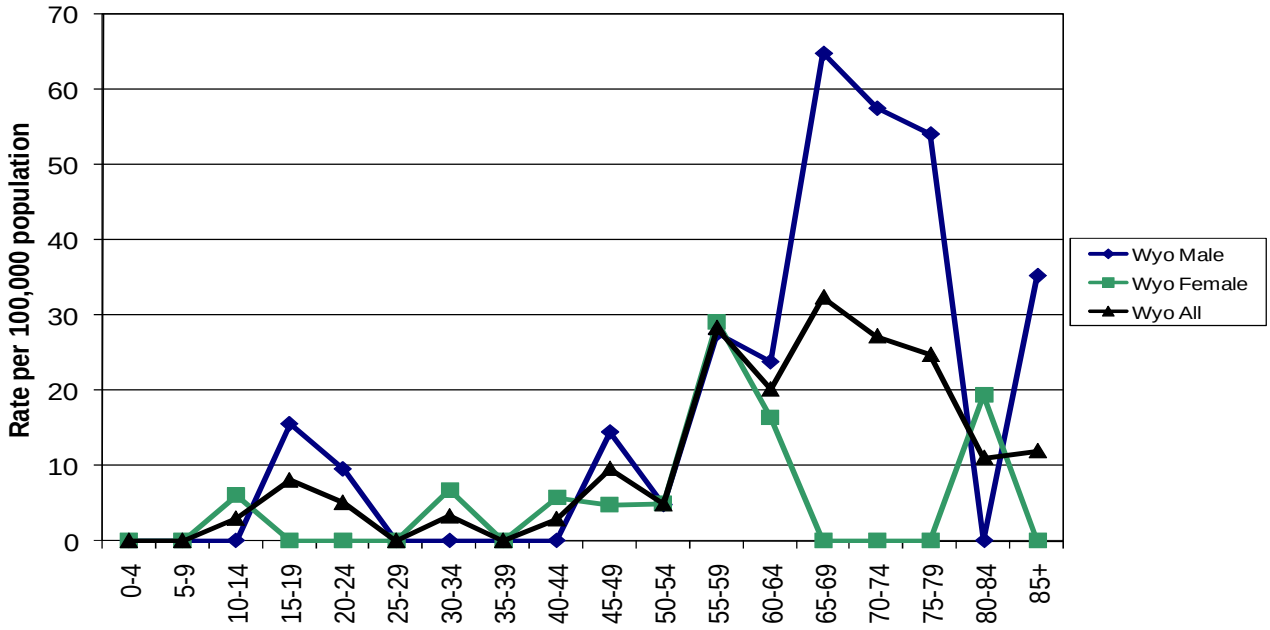
There were no differences between the CHD's and state rate for incidence or mortality.

12-Year Incidence Trend



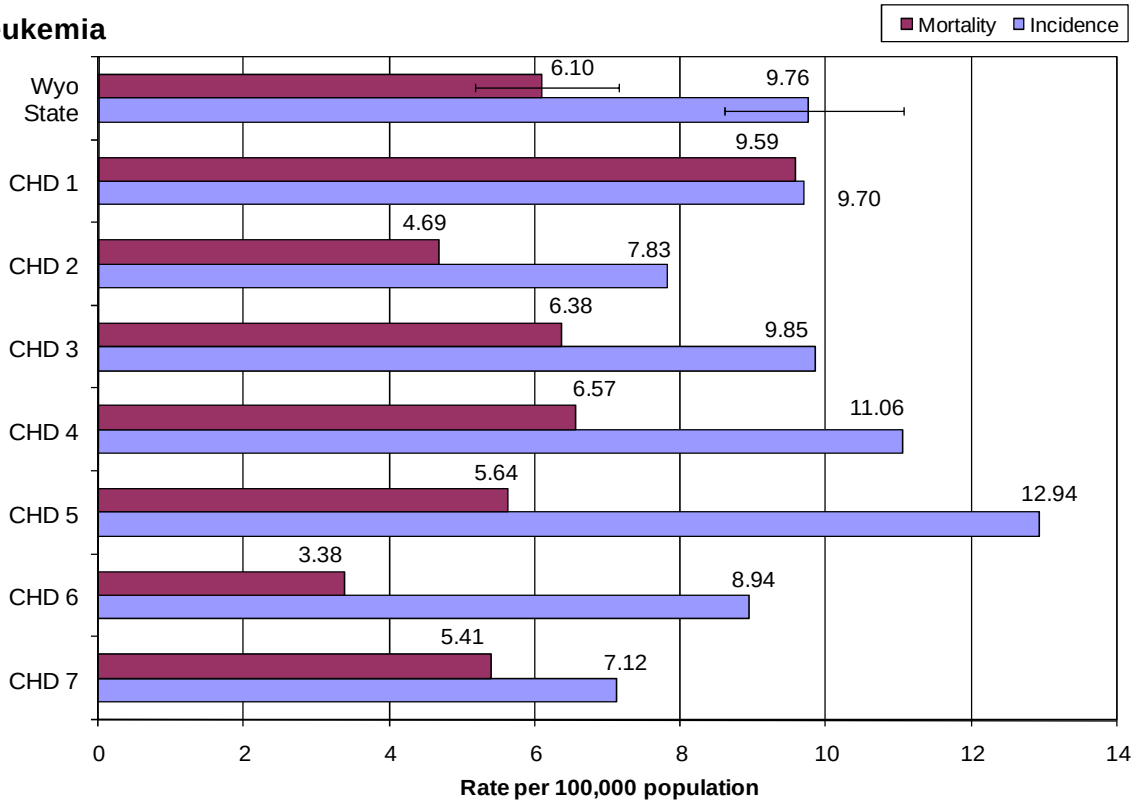
Age-Specific Incidence Rates - 2006

Leukemia



Cancer Health District Incidence and Mortality
5-Year Average, 2002-2006

Leukemia



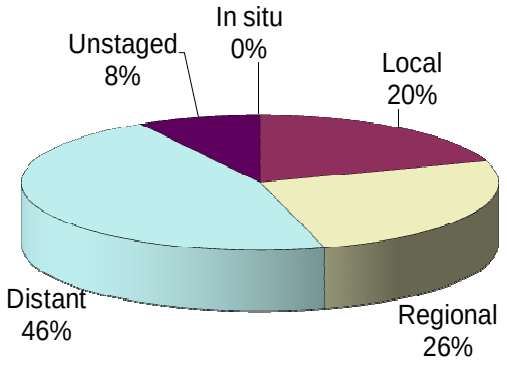
Lung and Bronchus

Incidence and Mortality Summary

	Male	Female	Total
# Invasive Cases	127	124	251
Wyo Incidence	53.1*	44.3	47.7
US Incidence	74.1	53.9	62.4
# Cancer Deaths	125	107	232
Wyo Mortality	53.2	38.5	44.6
US Mortality	69.0	41.6	53.2

* indicates the state rate is significantly different than the national rate
NC = rate not calculated for under 5 cases/deaths

Stage at Diagnosis



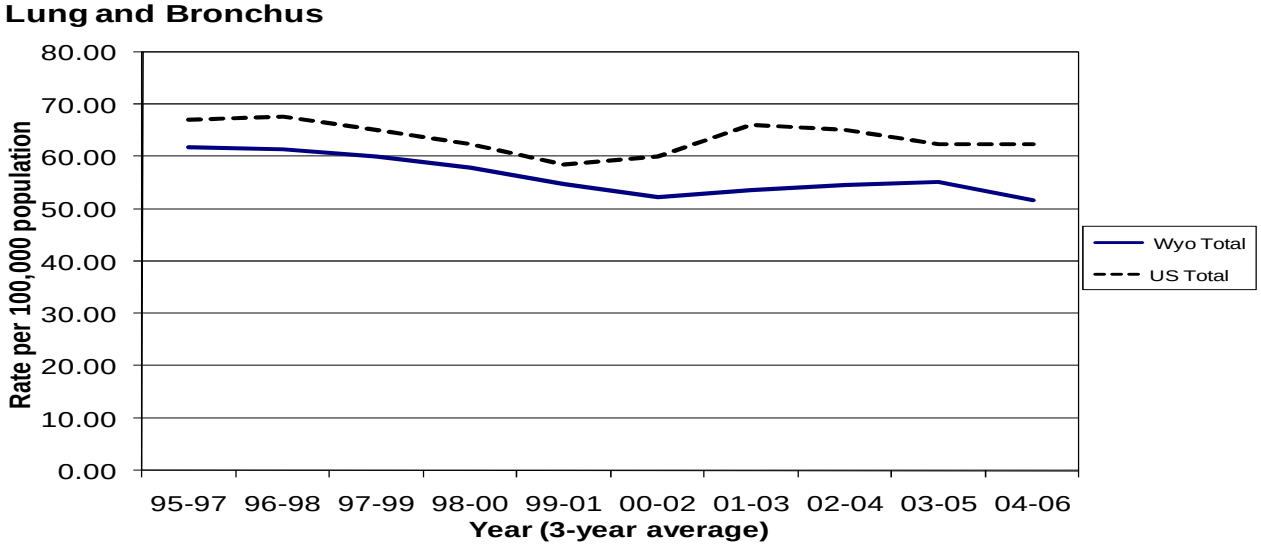
Lung cancer incidence rates in Wyoming males, females, and total population were all lower than the national rates, with males being significantly lower than the national rate. For mortality, all rates were again lower than the national rates; however, none of the differences for mortality were significant.

Incidence rates for lung cancer in Wyoming shows a decrease since 03-05. Nationally, the rate seems to be leveling off since 03-05.

The percentages at each stage of diagnosis were very similar to the percentages seen in 2005.

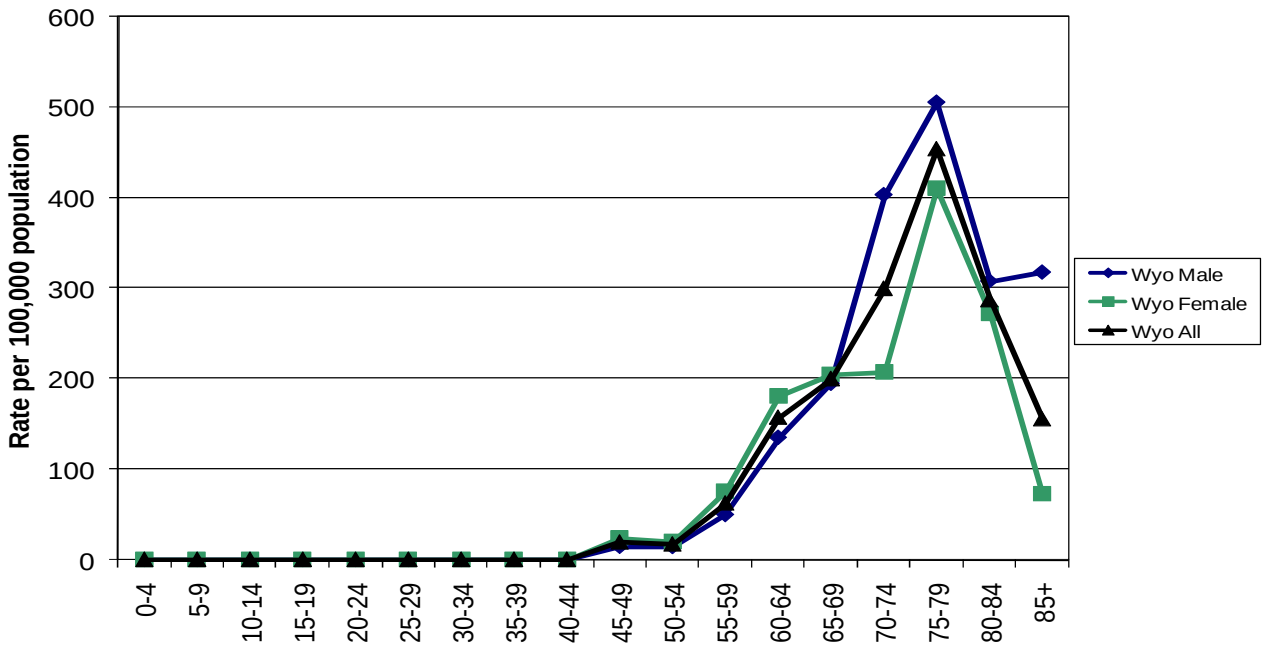
There were no significant differences between CHD's and the state rate for incidence or mortality.

12-Year Incidence Trend



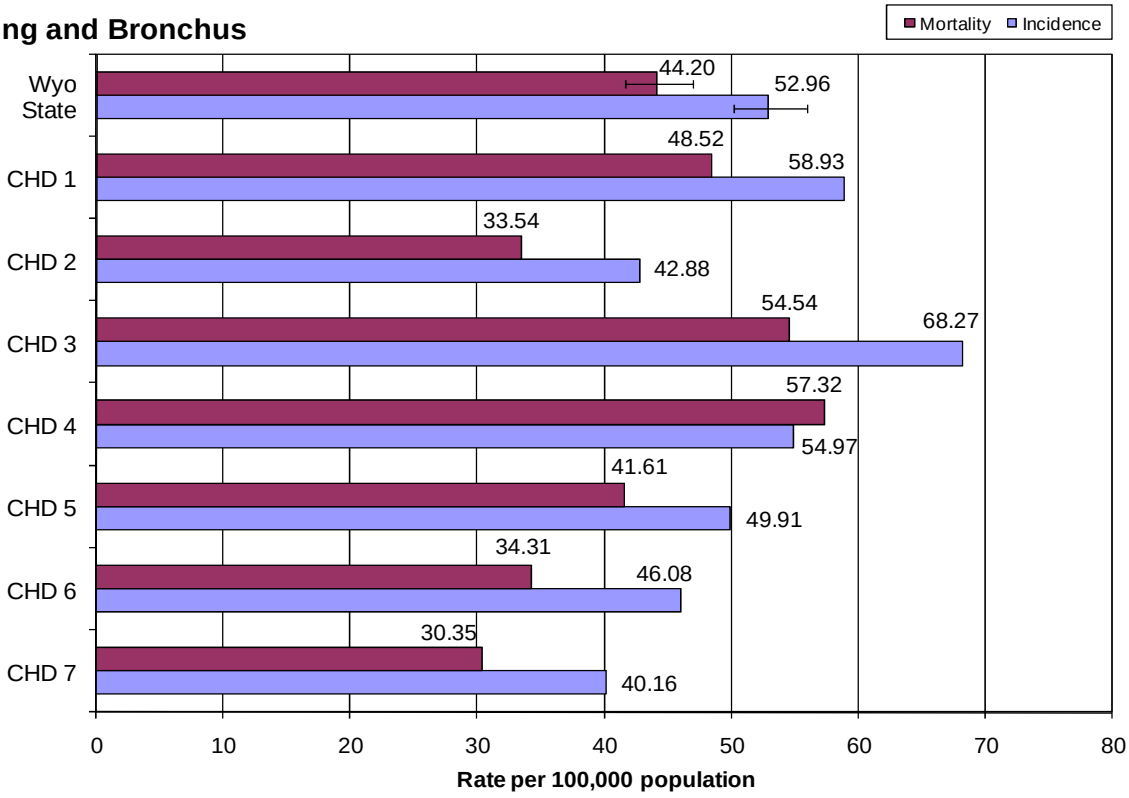
Age-Specific Incidence Rates - 2006

Lung and Bronchus



Cancer Health District Incidence and Mortality
5-Year Average, 2002-2006

Lung and Bronchus



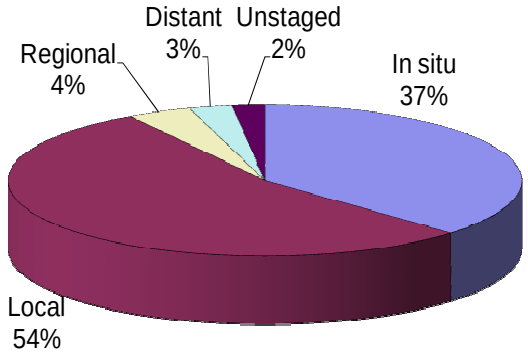
Melanoma (of the skin)

Incidence and Mortality Summary

	Male	Female	Total
# Invasive Cases	55	38	93
# In situ Cases	31	24	55
Wyo Incidence	21.9	13.9	17.4
US Incidence	30.7	20.1	24.5
# Cancer Deaths	13	6	19
Wyo Mortality	5.9	2.1	3.7
US Mortality	4.5	2.1	3.1

* indicates the state rate is significantly different than the national rate
NC = rate not calculated for under 5 cases/deaths

Stage at Diagnosis



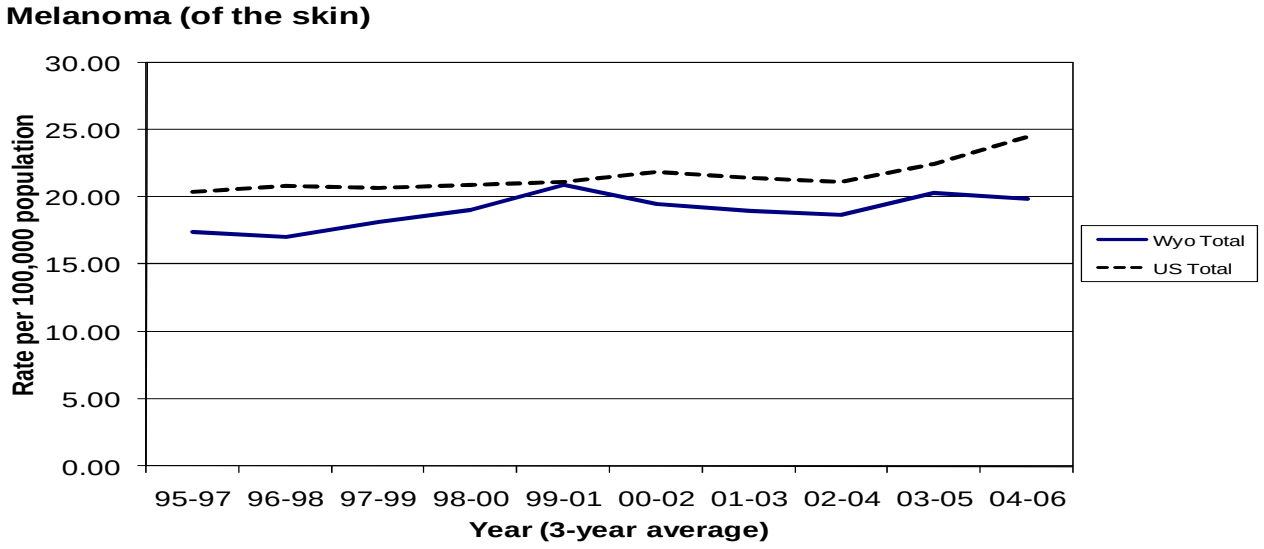
Incidence rates for melanoma of the skin in Wyoming for males, females, and total population were all lower than the national rates. The mortality rates for males and total population were higher than the national, while female rates were the same as the national rate. None of the differences were statistically significant.

The increase in melanoma incidence that began in 02-04 appears to be leveling off since 03-05. Nationally, the rate has been increasing since 02-04.

The percent of cases diagnosed at the In situ stage increased from 25% in 2005, while the percentage of cases diagnosed at the local stage decreased from 58%.

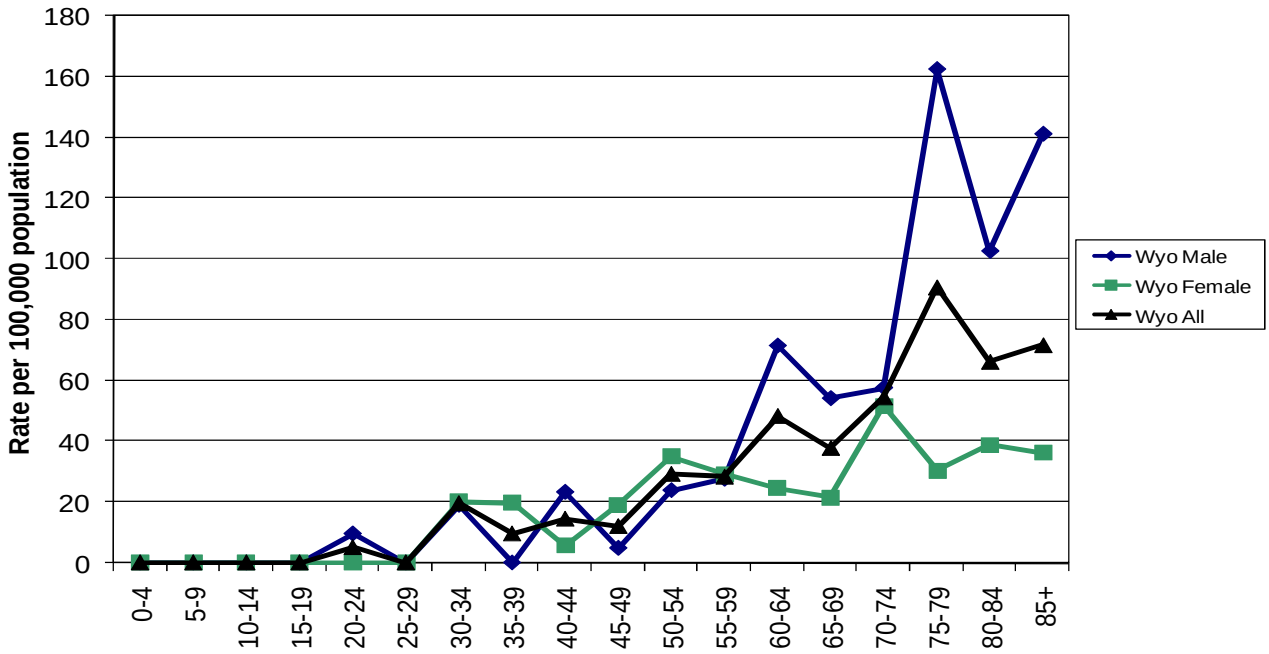
No statistically significant differences were found between the CHD's and state rate for incidence or mortality.

12-Year Incidence Trend



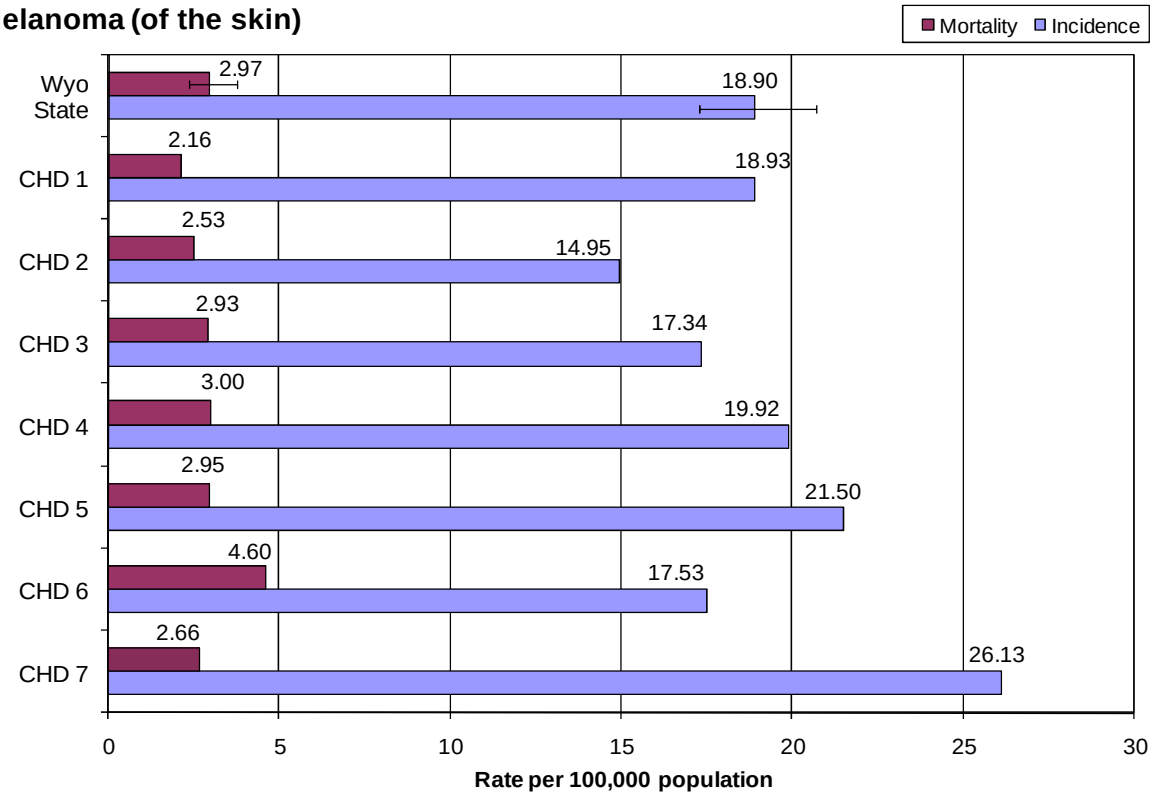
Age-Specific Incidence Rates - 2006

Melanoma (of the skin)



Cancer Health District Incidence and Mortality
5-Year Average, 2002-2006

Melanoma (of the skin)



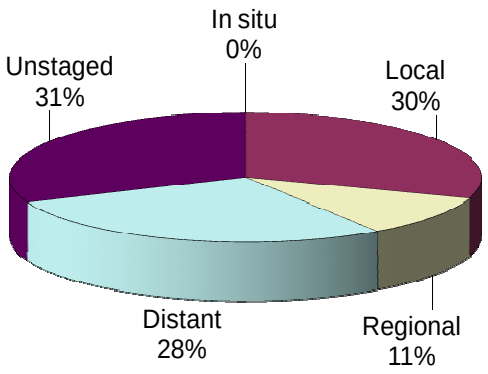
Non-Hodgkin Lymphoma

Incidence and Mortality Summary

	Male	Female	Total
# Invasive Cases	54	42	96
Wyo Incidence	19.4	14.9	17.5
US Incidence	24.2	16.7	20.0
# Cancer Deaths	18	14	32
Wyo Mortality	7.1	4.6	6.0
US Mortality	9.1	5.7	7.2

* indicates the state rate is significantly different than the national rate
NC = rate not calculated for under 5 cases/deaths

Stage at Diagnosis



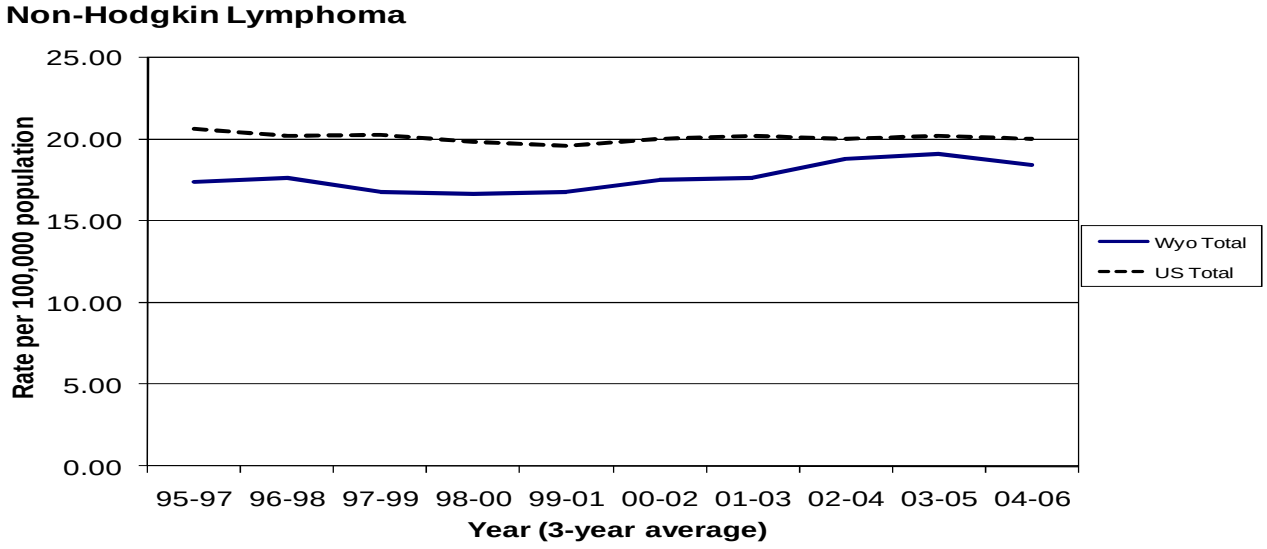
The incidence and mortality rates for males, females, and total population in Wyoming were all lower than the national rates. None were statistically significantly lower.

The incidence trend seems to be decreasing slightly since 03-05, while the national trend has been level for many years.

The percent of cancers diagnosed at each stage in 2006 is nearly identical to the percent by stage in 2005.

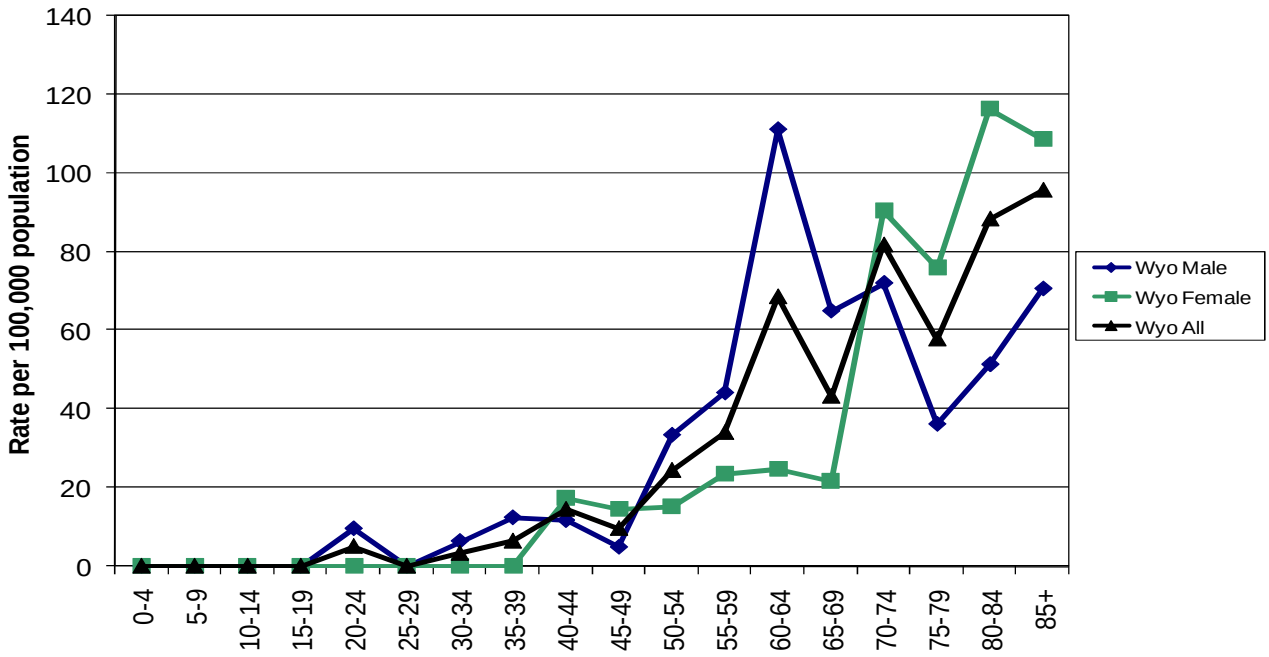
No statistically significant differences were found between the CHD's and state rate for incidence or mortality.

12-Year Incidence Trend



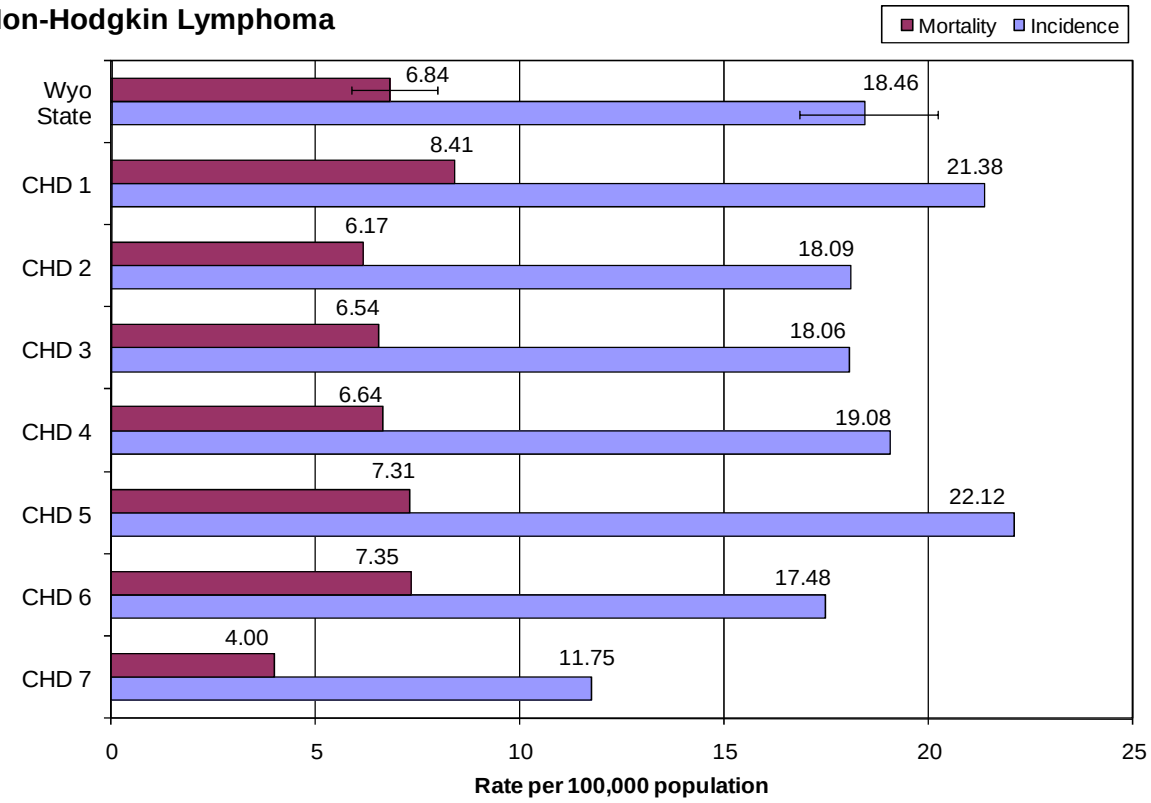
Age-Specific Incidence Rates - 2006

Non-Hodgkin Lymphoma



Cancer Health District Incidence and Mortality
5-Year Average, 2002-2006

Non-Hodgkin Lymphoma



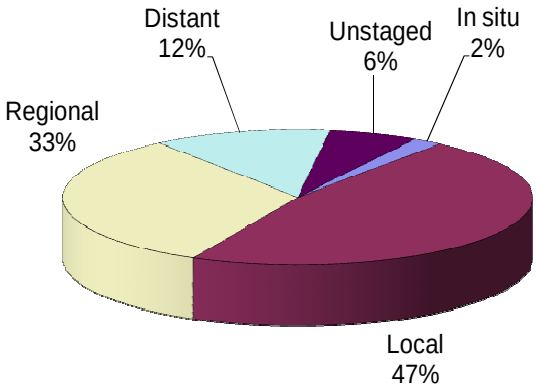
Oral Cavity

Incidence and Mortality Summary

	Male	Female	Total
# Invasive Cases	37	11	48
# In situ Cases	1	0	1
Wyo Incidence	13.5	3.9	8.4
US Incidence	15.3	5.9	10.3
# Cancer Deaths	7	1	8
Wyo Mortality	2.8	NA	1.5
US Mortality	3.6	1.4	2.4

* indicates the state rate is significantly different than the national rate
NC = rate not calculated for under 5 cases/deaths

Stage at Diagnosis



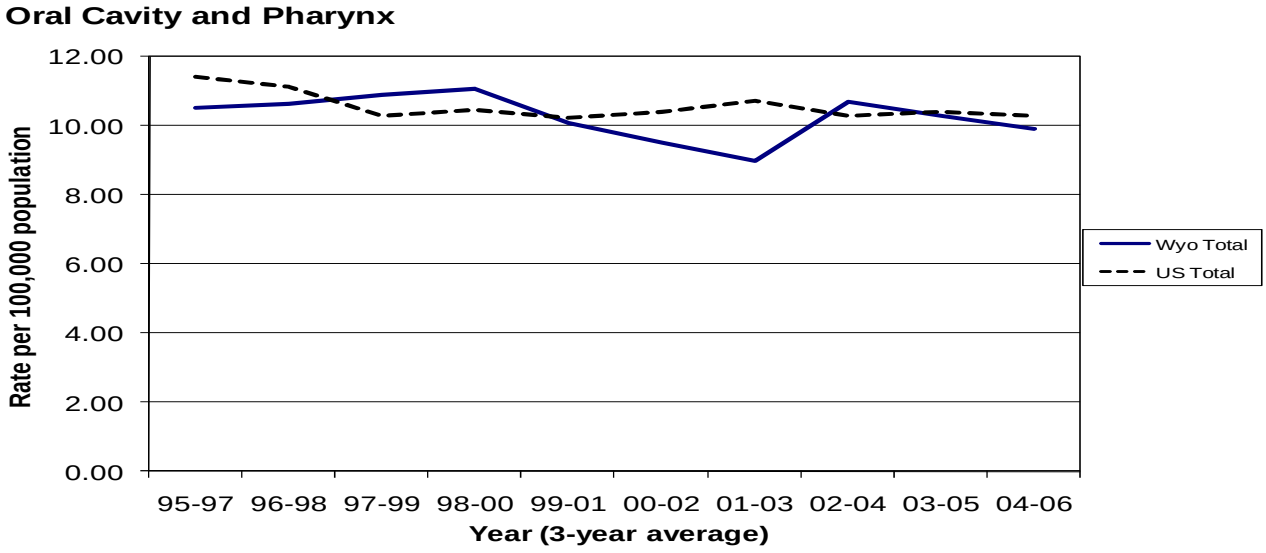
Incidence rates for cancer of the oral cavity and pharynx in males, females, and total population were all lower than the national rate. Mortality rates for males and total population were both lower than the national rates, though not significantly.

The 12-Year incidence trend continues to decrease slightly since 02-04. Nationally, the trend shows a leveling off since 02-04.

More cases were diagnosed as local in 2006 than 2005 (38%), though this difference was not significant.

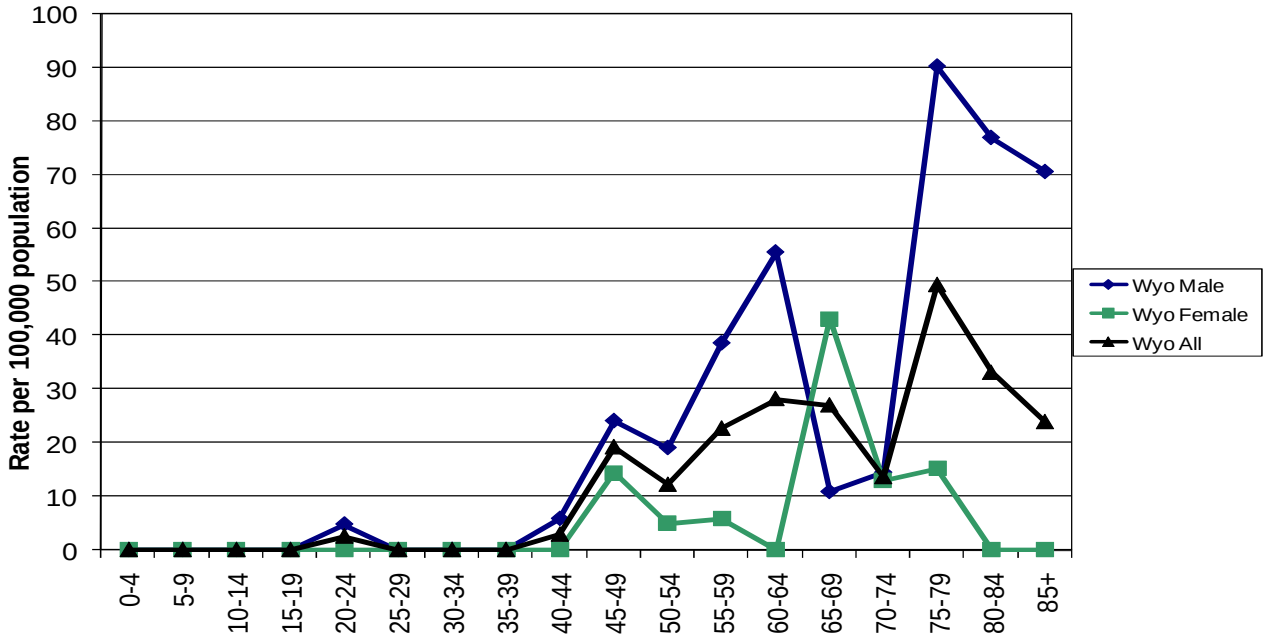
No statistically significant differences were found between the CHD's and state rate for incidence or mortality.

12-Year Incidence Trend



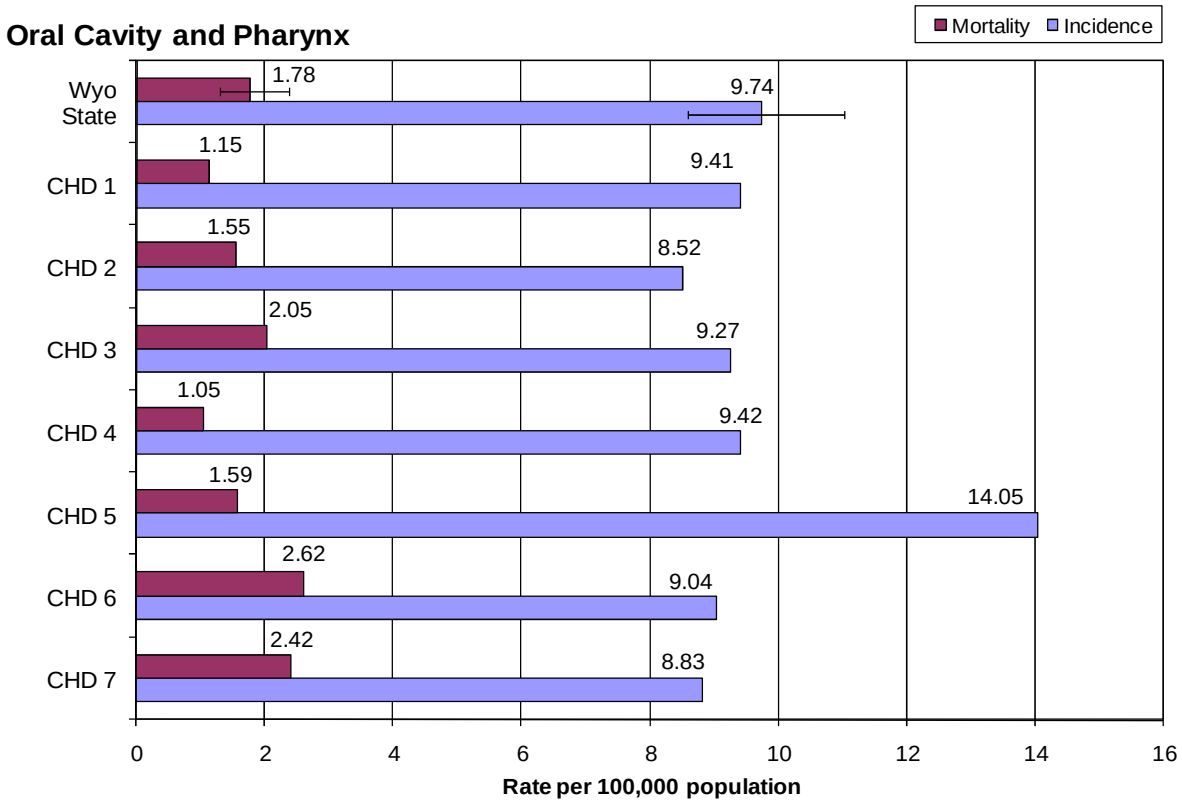
Age-Specific Incidence Rates - 2006

Oral Cavity and Pharynx



Cancer Health District Incidence and Mortality
5-Year Average, 2002-2006

Oral Cavity and Pharynx



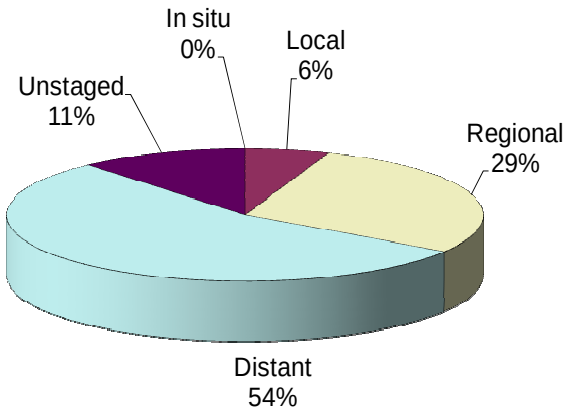
Ovary

Incidence and Mortality Summary

	Female
# Invasive Cases	35
Wyo Incidence	12.5
US Incidence	13.3
# Cancer Deaths	22
Wyo Mortality	7.3
US Mortality	9.0

* indicates the state rate is significantly different than the national rate
NC = rate not calculated for under 5 cases/deaths

Stage at Diagnosis



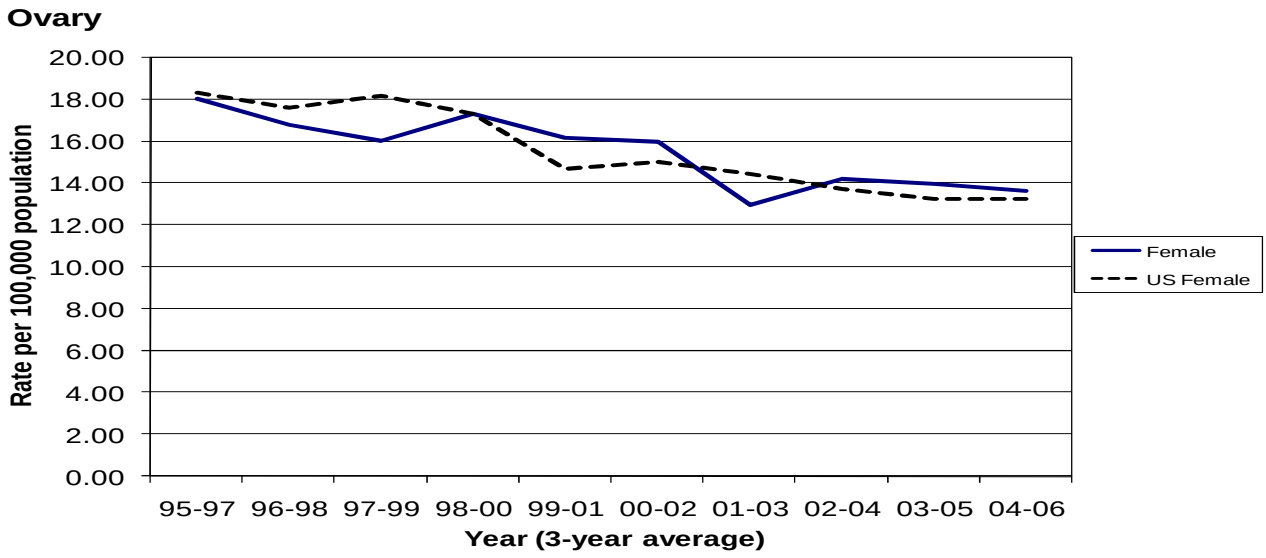
The incidence and mortality rates in Wyoming females for ovarian cancer were both slightly lower than the national rates. However, neither difference was statistically significant.

The 12-year incidence trend shows small decrease since 02-04. The national rate appears to be leveling off in 04-06 after decreasing from 00-02 to 03-05.

The percent of cases diagnosed at each stage were essentially the same as the percentages in 2005.

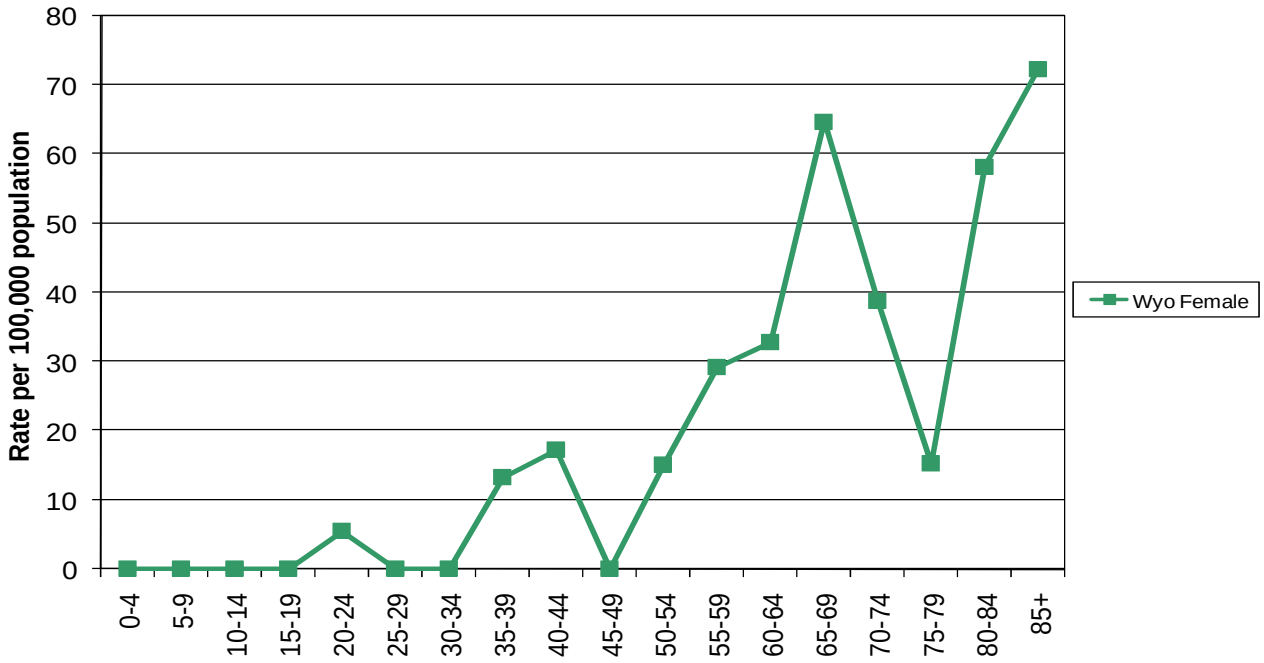
No statistically significant differences were found between the CHD's and state rate for incidence or mortality.

12-Year Incidence Trend



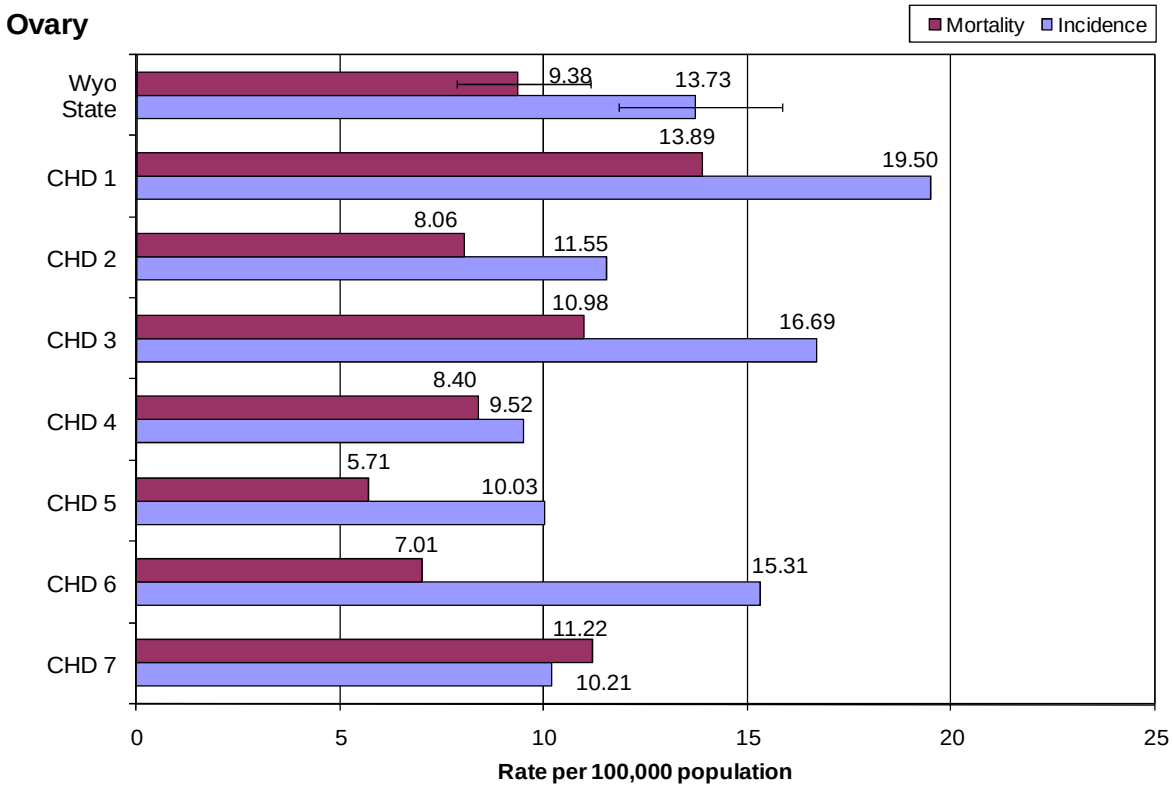
Age-Specific Incidence Rates - 2006

Ovary



Cancer Health District Incidence and Mortality
5-Year Average, 2002-2006

Ovary



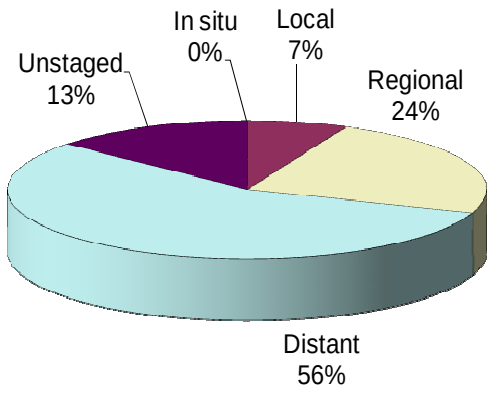
Pancreas

Incidence and Mortality Summary

	Male	Female	Total
# Invasive Cases	32	27	59
Wyo Incidence	12.9	9.6	11.2
US Incidence	12.7	10.2	11.4
# Cancer Deaths	34	28	62
Wyo Mortality	13.7	10.1	12.0
US Mortality	12.2	9.2	10.6

* indicates the state rate is significantly different than the national rate
NC = rate not calculated for under 5 cases/deaths

Stage at Diagnosis



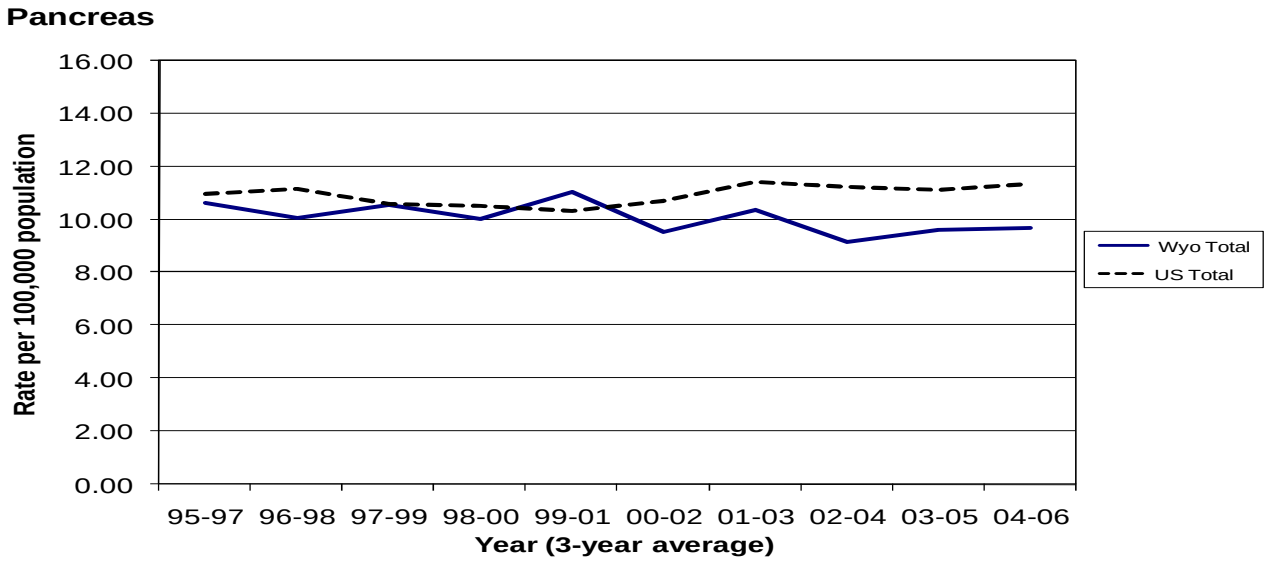
The incidence rates of cancer of the pancreas in Wyoming females and the total population were both lower than the national rates. The rate for males was slightly higher than the national rate.
The mortality rate for males, females and total population were all somewhat higher than the national rate. None of the differences were statistically significant.

Wyoming's trend shows a leveling off after a small increase from 02-04 to 03-05. Nationally, the rate also appears to be increasing slightly since 03-05.

A higher percent of pancreas cancers were staged as regional in 2006 than in 2005 (17%), while a lower percentage were unstaged in 2006 than in 2005 (19%).

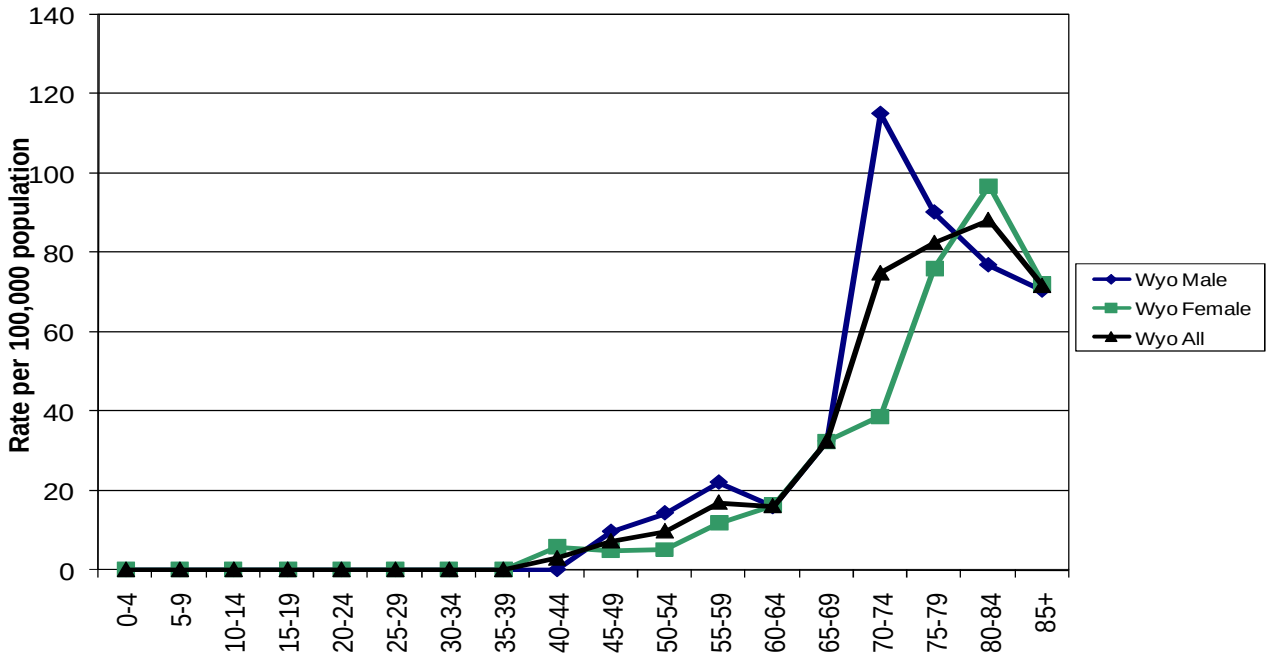
No statistically significant differences were found between the CHD's and state rates for incidence or mortality.

12-Year Incidence Trend



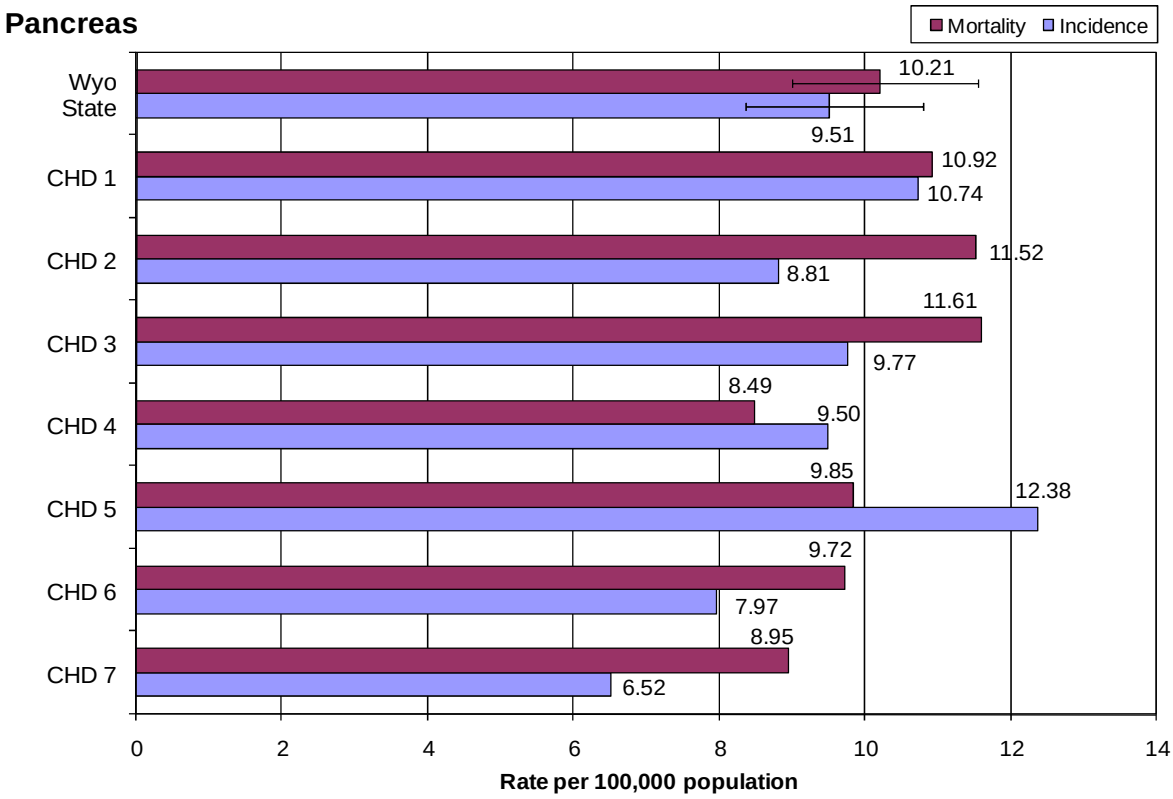
Age-Specific Incidence Rates - 2006

Pancreas



Cancer Health District Incidence and Mortality
5-Year Average, 2002-2006

Pancreas



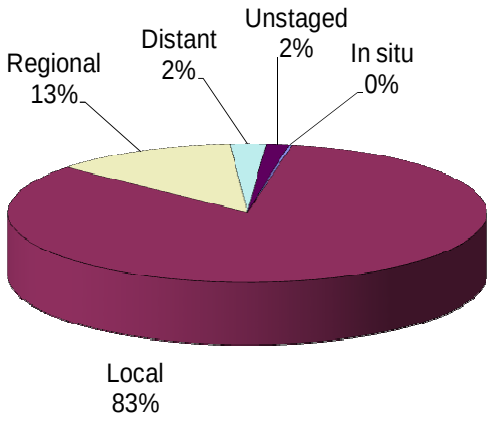
Prostate

Incidence and Mortality Summary

	Male
# Invasive Cases	456
Wyo Incidence	172.2*
US Incidence	137.9
# Cancer Deaths	58
Wyo Mortality	26.7
US Mortality	22.7

* indicates the state rate is significantly different than the national rate
NC = rate not calculated for under 5 cases/deaths

Stage at Diagnosis



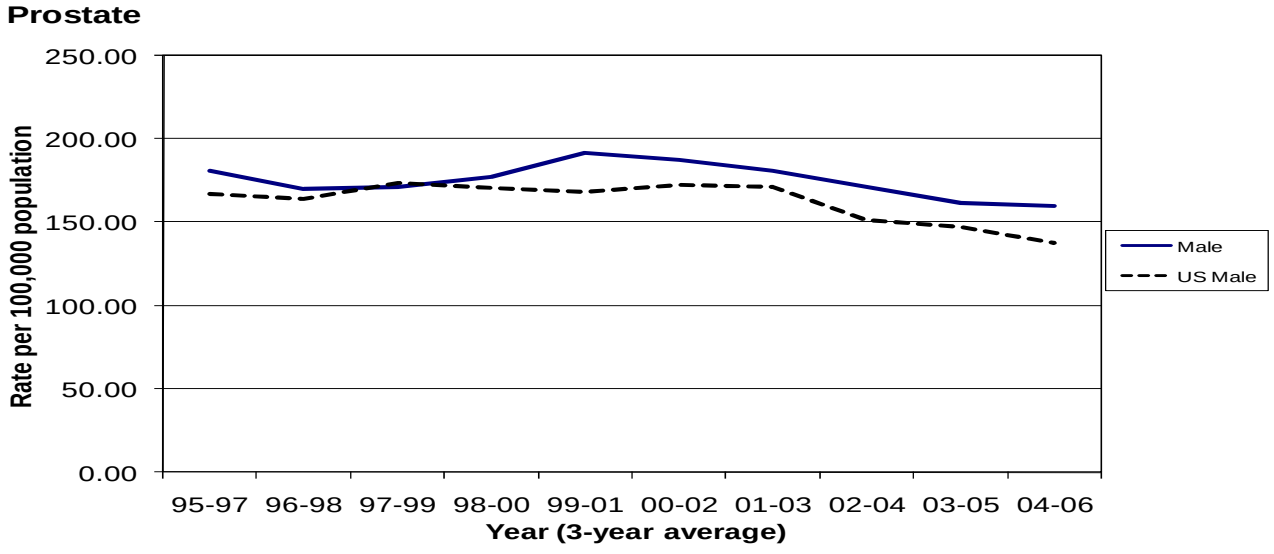
The incidence rate for prostate cancer in Wyoming males was significantly higher than the national rate. The mortality rate was also higher, though not significantly.

The modest decline in the incidence rate that started in 99-01 appears to be leveling off somewhat since 03-05. The national rate shows a decline since 02-04.

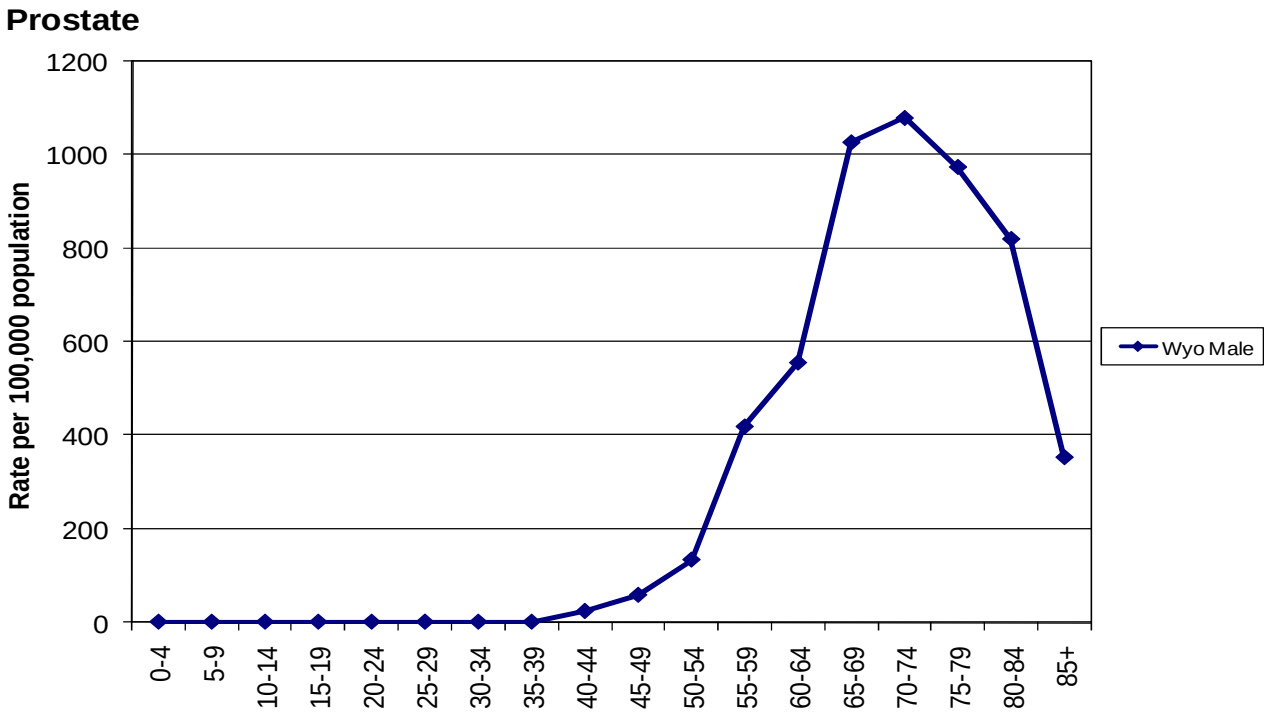
The percent of cases diagnosed at each stage in 2006 is essentially the same as in 2005.

The incidence rate in CHD 1 was significantly higher than the state incidence rate from 2002 to 2006. There were no significant differences in mortality rates.

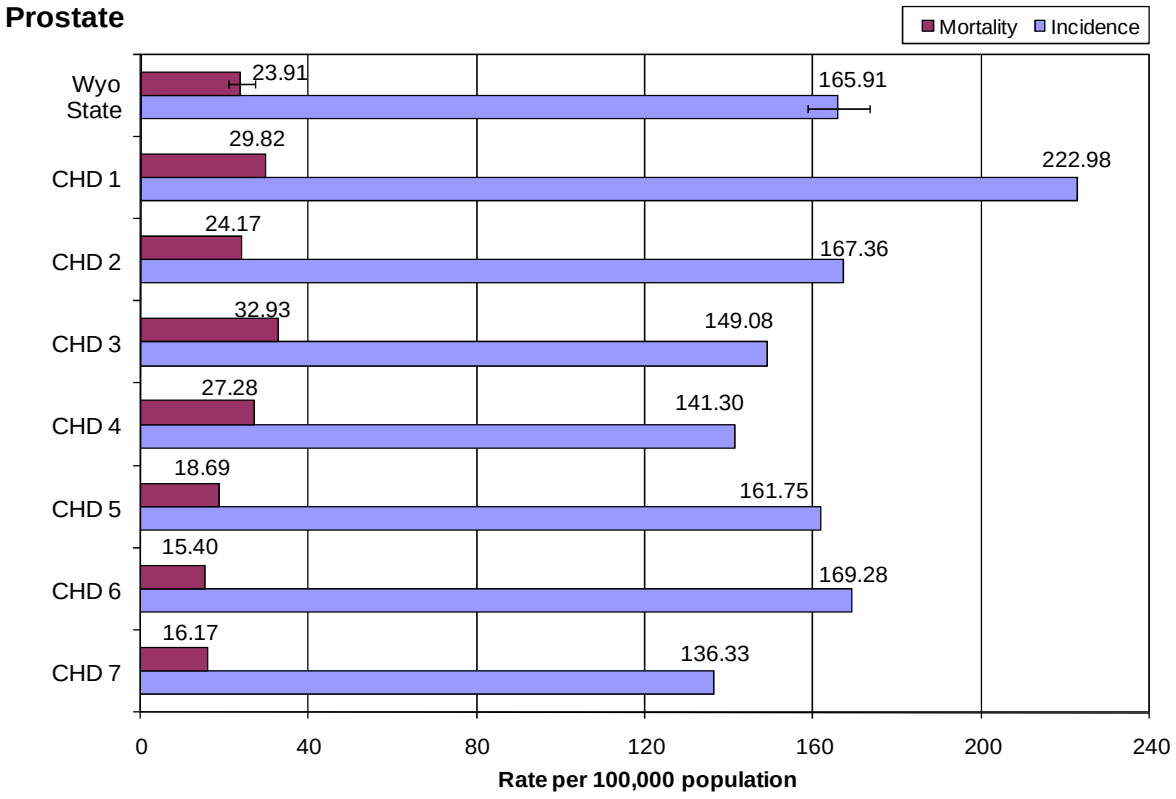
12-Year Incidence Trend



Age-Specific Incidence Rates - 2006



Cancer Health District Incidence and Mortality
5-Year Average, 2002-2006



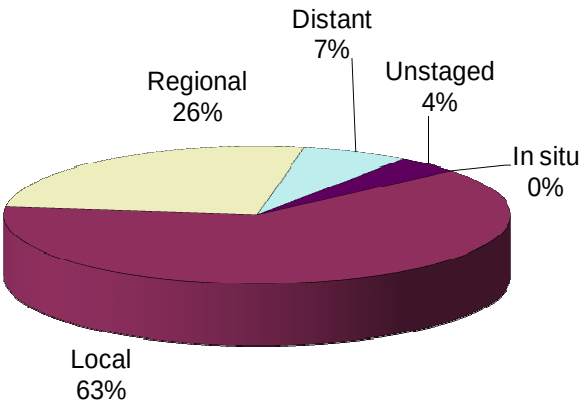
Thyroid

Incidence and Mortality Summary

	Male	Female	Total
# Invasive Cases	16	57	73
Wyo Incidence	6.2	23.0	14.6
US Incidence	5.6	15.8	10.7
# Cancer Deaths	2	3	5
Wyo Mortality	NC	NC	NC
US Mortality	0.5	0.5	0.5

* indicates the state rate is significantly different than the national rate
NC = rate not calculated for under 5 cases/deaths

Stage at Diagnosis



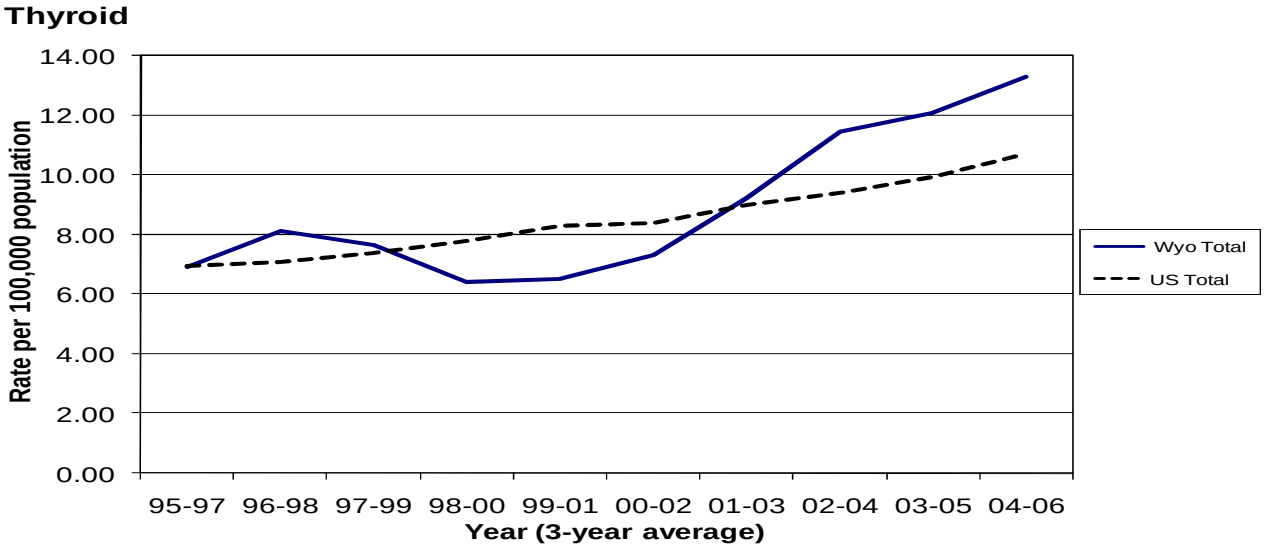
Incidence rates for thyroid cancer in Wyoming were all higher than the national rates for males, females, and total population.. These differences were not statistically significant.

The trend for thyroid cancer in Wyoming shows a continuation of an increase that started in 00-02. The national rate also appears to be on the increase, though at a more modest pace.

The percentage of cases at each stage are very similar to the percentages seen in 2005.

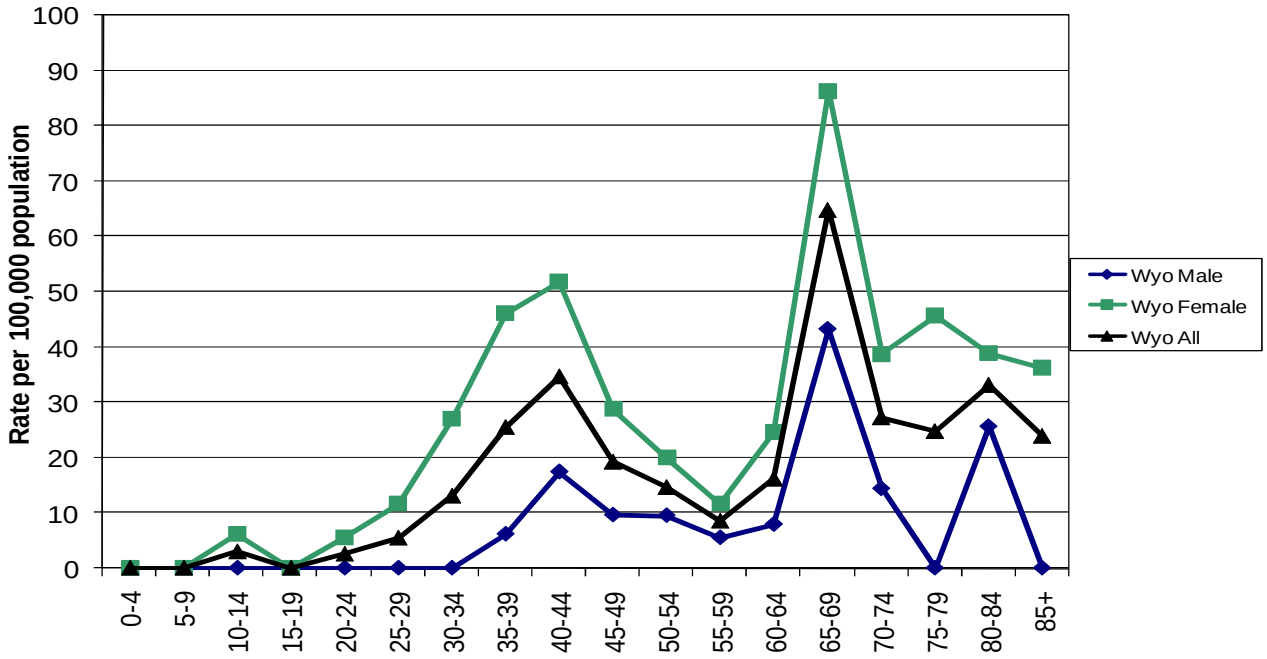
No statistically significant differences were found between the CHD's and state rate for incidence. Additionally, no region reported more than 5 deaths due to thyroid cancer from 2002-2006.

12-Year Incidence Trend



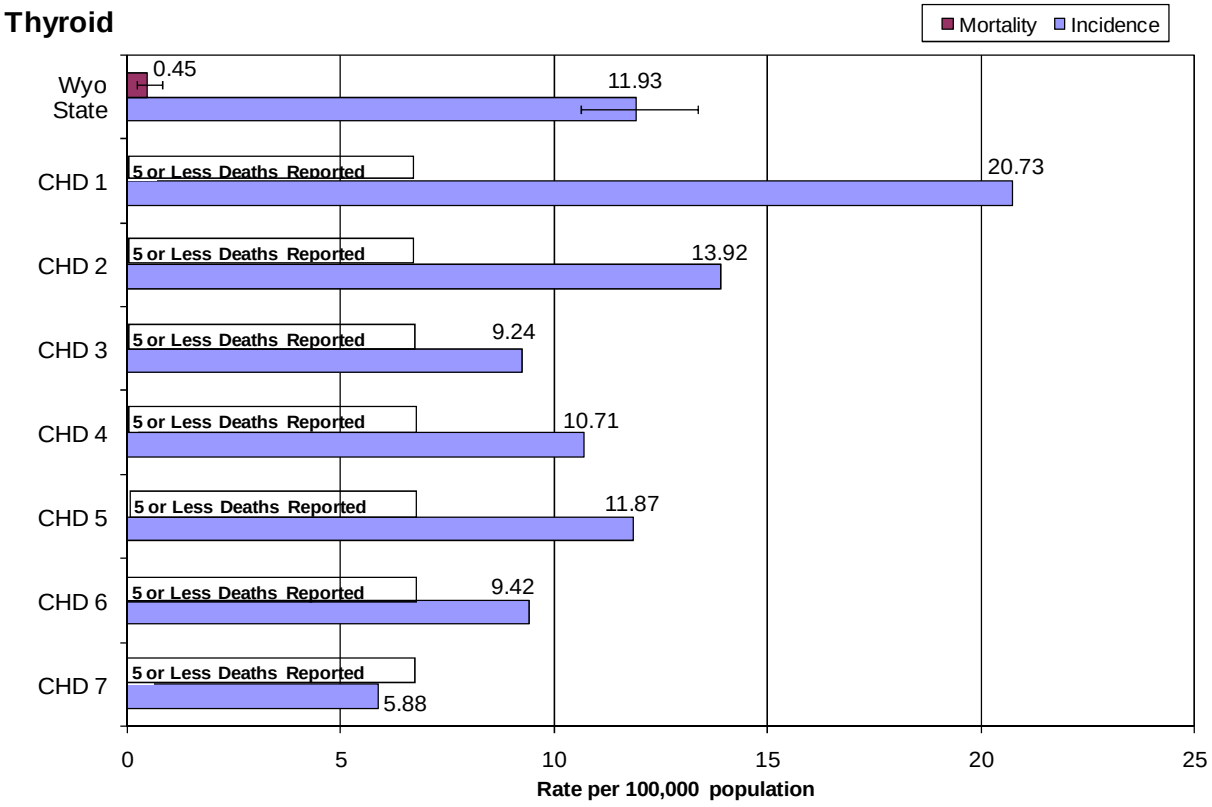
Age-Specific Incidence Rates - 2006

Thyroid



Cancer Health District Incidence and Mortality
5-Year Average, 2002-2006

Thyroid



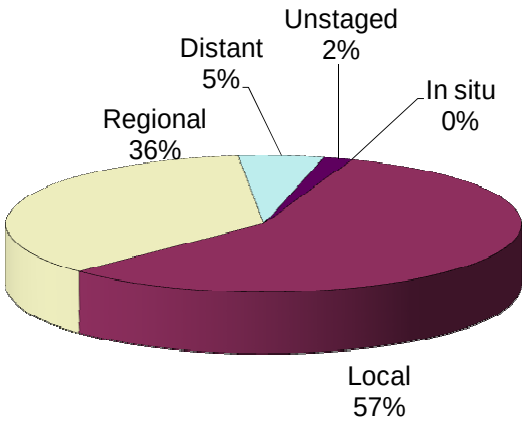
Uterine (Corpus Uteri & Uterus)

Incidence and Mortality Summary

	Female
# Invasive Cases	56
Wyo Incidence	20.0
US Incidence	24.7
# Cancer Deaths	4
Wyo Mortality	NA
US Mortality	3.8

* indicates the state rate is significantly different than the national rate
NC = rate not calculated for under 5 cases/deaths

Stage at Diagnosis



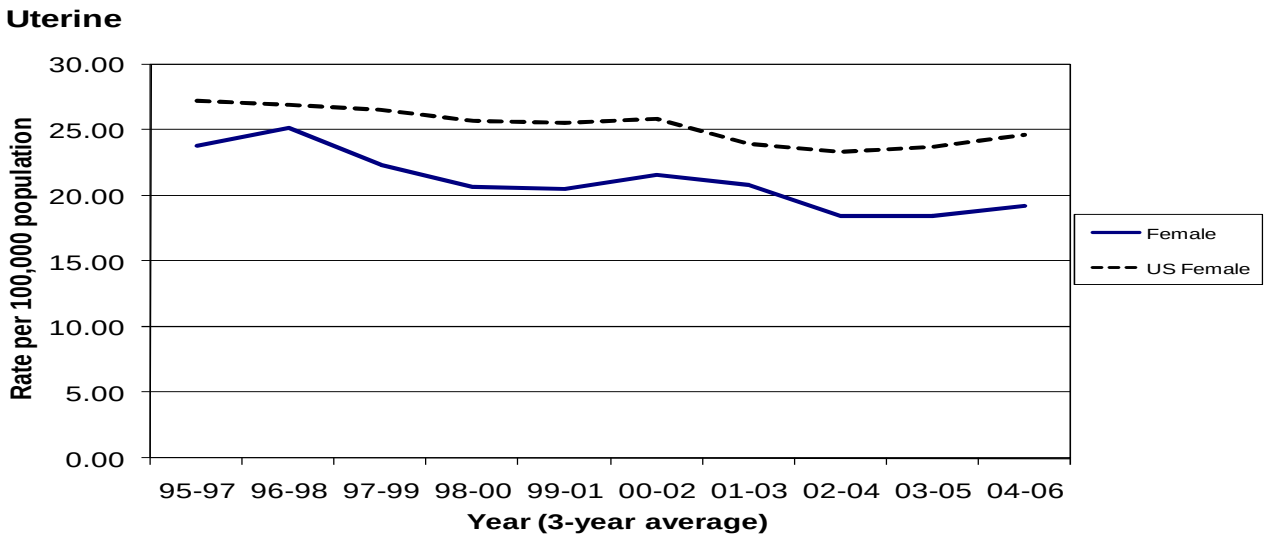
The incidence rate in Wyoming females for uterine cancer was lower than the national rates, though not significantly.

There appears to be possible increase in incidence 03-05 to 04-06. The incidence trend for the nation also shows a slight increase starting in 03-05.

Significantly more cases of uterine cancer were staged as regional in 2006 than in 2005 (15%). There were no other significant difference in the percentages of each stage as compared to 2005.

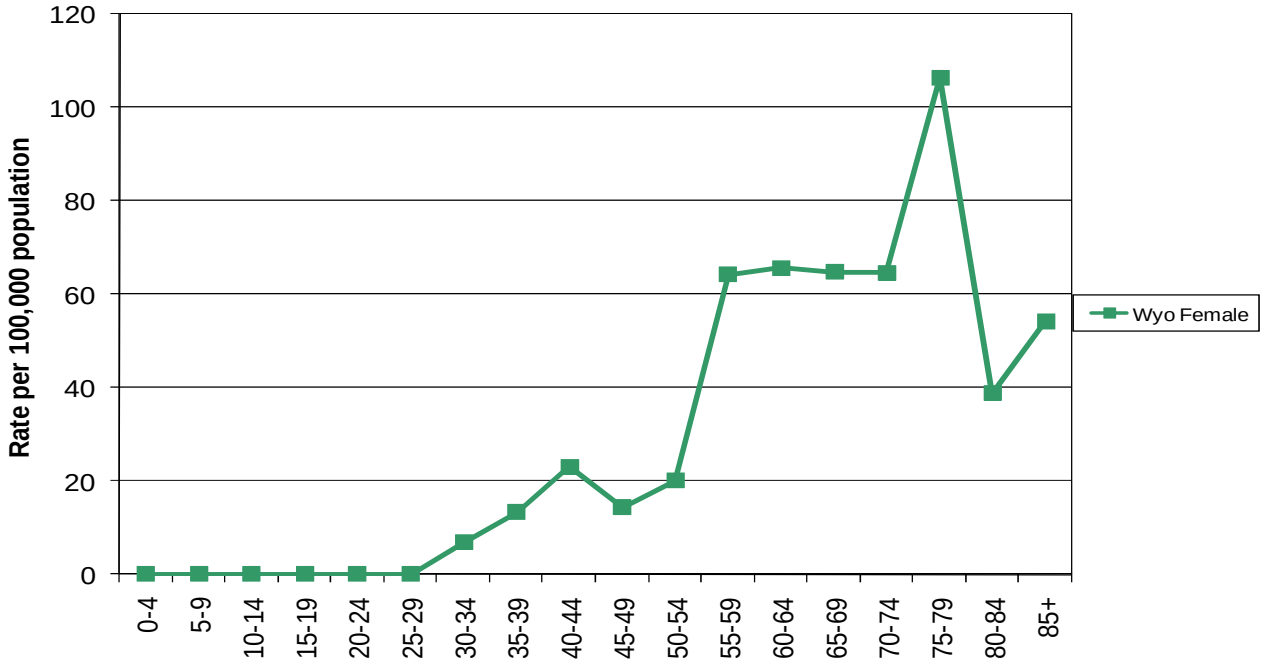
No statistically significant differences were found between the CHD's and state rate for incidence or mortality.

12-Year Incidence Trend



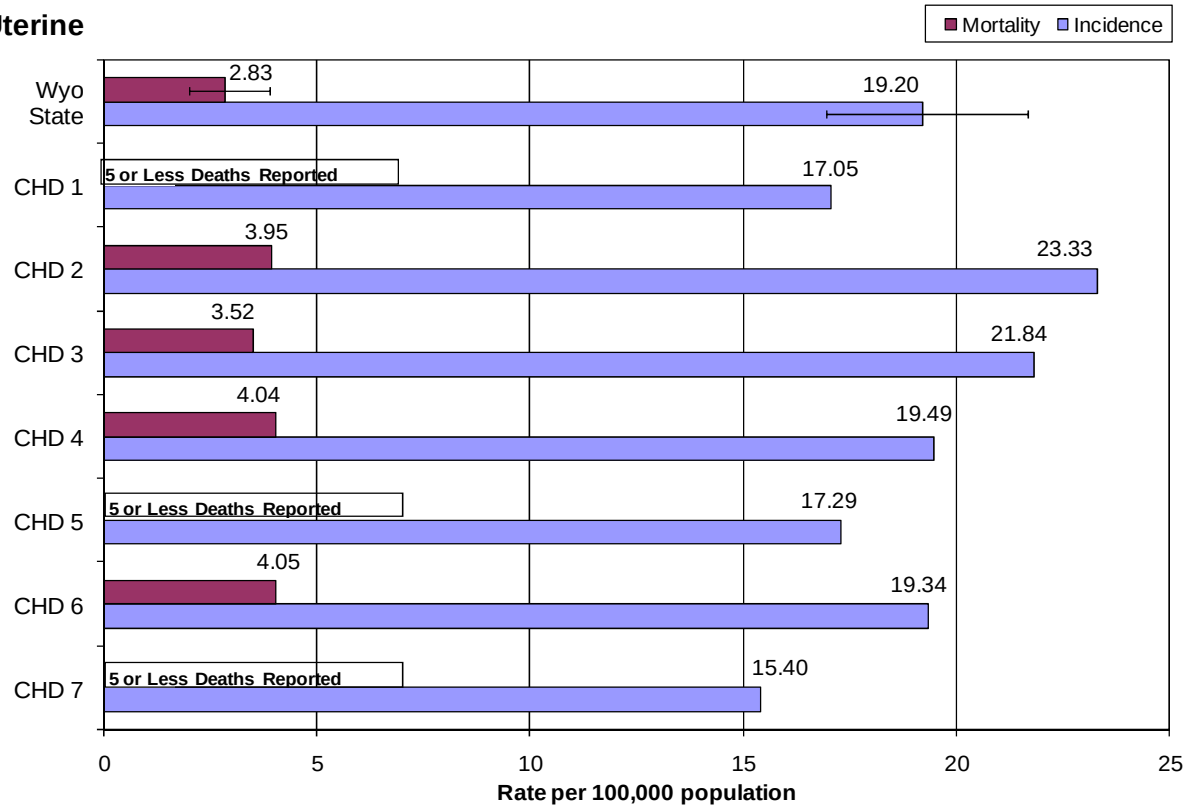
Age-Specific Incidence Rates - 2006

Uterine



Cancer Health District Incidence and Mortality
5-Year Average, 2002-2006

Uterine



Appendix A

References

Centers for Disease Control and Prevention. CDC Wonder. (http://www.cdc.gov)

Surveillance, Epidemiology, and End Results (SEER) Program Public-Use Data (1969-2005) (SEER*STAT,Version 6.4.4), National Cancer Institute, DCCPS, Surveillance Research Program, Cancer Statistics Branch, released April 2008, based on November 2007 submissions. (Includes Hurricane Katrina Impacted Louisianna Cases, Nov 2007)

Wyoming Department of Administration and Information, Economic Analysis Division. Wyoming State and County Population. (http://eadiv.state.wy.us/eahome.htm)

Surveillance, Epidemiology, and End Results (SEER) U.S. Population Data, National Cancer Institute (http://seer.cancer.gov/popdata/)

Age-Adjustment

Previous to data year 1999, the Wyoming Cancer Surveillance Program (WCSP) performed age-adjustment of cancer mortality rates using the 1940 standard population and a 10-year age group, or the 1970 standard population using 5-year age groups. Starting with the data year 1999, WCSP began using the Year 2000 standard population with 5-year age groups to calculate cancer mortality and cancer incidence rates.

The decision to use 5-year age groups was made to keep WCSP data calculations "in-line" with the national cancer reports published through SEER and the National Cancer Institute. The 5 -year age group also enables cancer prevention programs to use Wyoming reports (e.g., Vital Records) as printed versus requesting specially calculated rates.

"Age-adjusted rates should be used for comparative purposes only and should not be interpreted as the absolute risk of the disease or death." As can be seen in Chart A (below) and Chart B, (following page), the change in standard population affects the magnitude of the age-adjusted rates but not the trends of the rates. In general, the age-adjusted rate is only appropriate to track trends over time or to make comparisons among groups using the same population standard.

Chart A:

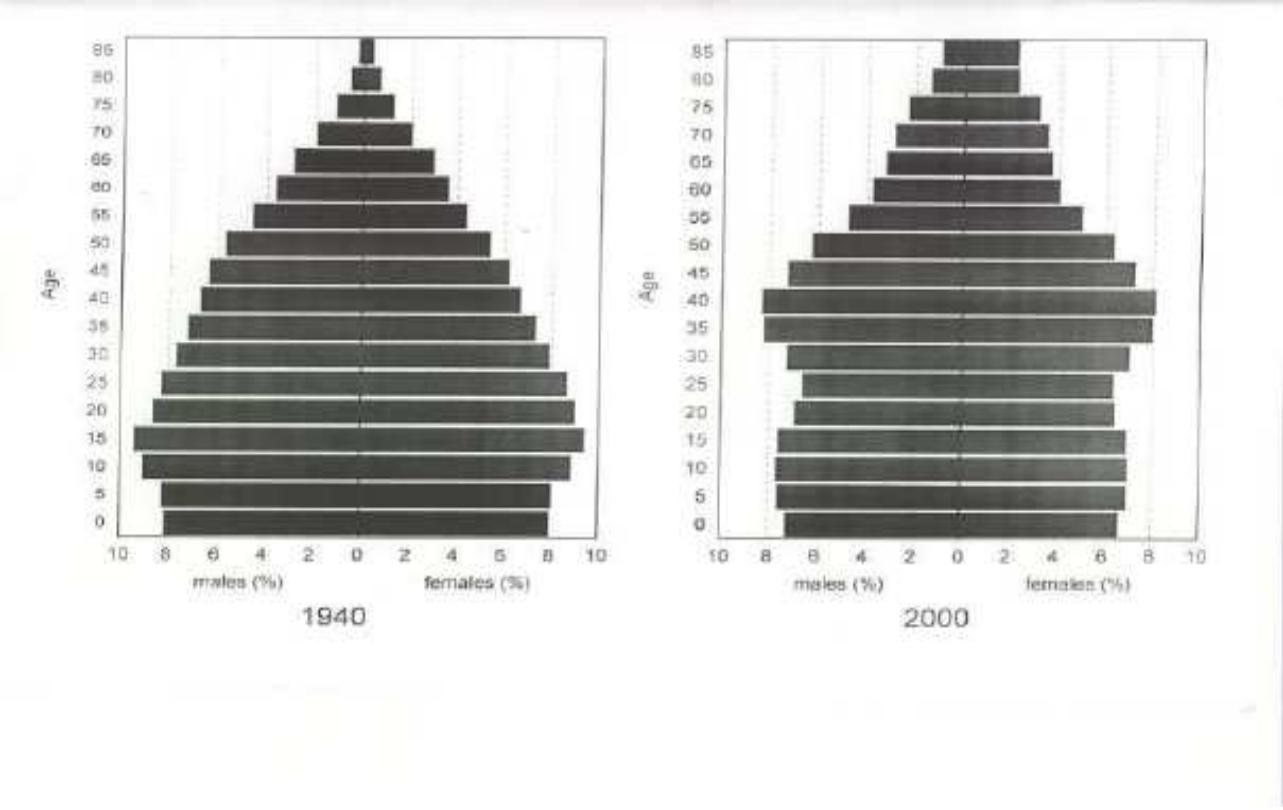
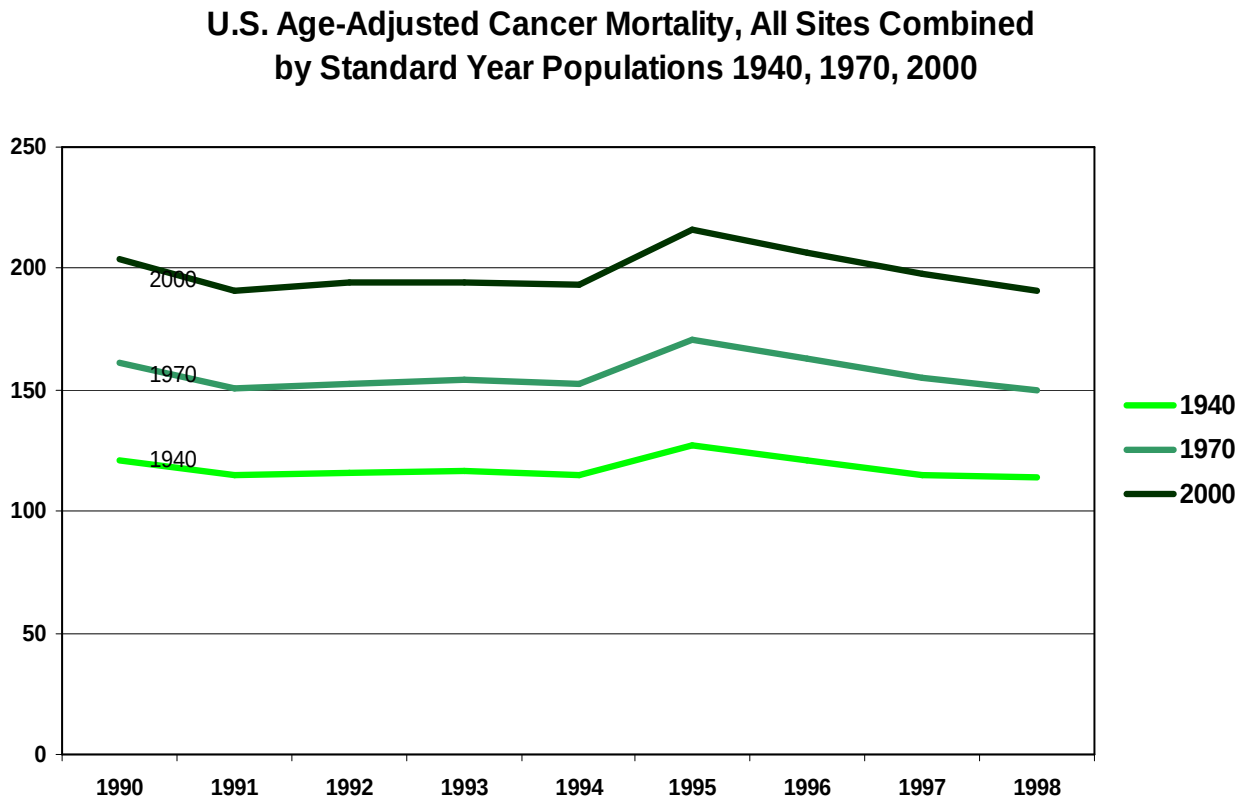


Chart B:


U.S. Age-Adjusted Cancer Mortality, All Sites Combined
by Standard Year Populations 1940, 1970, 2000
250
200
150
100
50
0
2000
1970
1940
1990
1991
1992
1993
1994
1995
1996
1997
1998
1940
1970
2000